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# Desert

JULY, 1970 50c



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**LOST LEGENDS OF THE WEST** by Brad Williams and Choral Pepper. The authors examine the "lore, legends, characters and myths that grew out of the Old West" in a sequel to their popular first book, *The Mysterious West*. Included among the more than 20 "lost legends" are such intriguing subjects as lost bones, lost ladies, lost towns, and lost diamonds. Hardcover, illustrated, 192 pages, \$5.95.

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## NOTICE!!

### OUT-OF-PRINT

#### LOWER CALIFORNIA GUIDEBOOK

Known as the "bible" for Baja California travelers, is temporarily out-of-print and will not be available until this fall. However, another excellent guide to the peninsula, "Baja California" by Cliff Cross, is available. See review on this page.

**FOR COMPLETE BOOK CATALOG WRITE TO DESERT MAGAZINE, PALM DESERT, CALIFORNIA 92260**



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Volume 33, Number 7

JULY, 1970

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#### THE COVER:

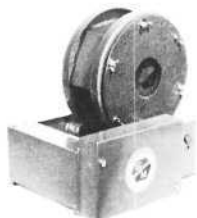
Depot and old wagon are part of the Railroad Museum and Historical Site at Laws, California. See Publisher's Poke, Page 5. Photo by Robert Campbell, Concord, California.

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# A Peek in the Publisher's Poke

IN THESE somewhat apprehensive times with lawlessness on the upswing it was encouraging to receive a clipping from Alva Sliger in Sunland, California. According to the California Fish and Game Code, Section 500, it is a misdemeanor to sell, purchase, needlessly harm, take or shoot a projectile at a desert tortoise. A Bakersfield resident was arrested with 35 tortoise in his possession and an additional 157 were discovered at his home. In the Kern River Rand Judicial District Justice Court in Johannes-

burg he was fined \$500 and sentenced to six months in jail which was suspended and placed on probation for three years while an accomplice was meted out a \$250 fine. It's about time we got tough and put some backing to our often disregarded fish and game laws.

Alva also enclosed another clipping from the *Mojave Desert News* which will bring joy to many camping readers. Red Rock Canyon (Desert, Jan. '70) California's newest state park, now has a resident ranger. With proper policing and the mere presence of park rangers the Red Rock Canyon area will again become a favorite spot for Southern Californians to get away from the crush of suburbia.

Last July we ran a short article entitled "Sierra Siesta for a Slim Princess" about the ten-wheel Baldwin locomotive and the narrow gauge line it ran on. Reader response was terrific so I know they will appreciate this month's cover which shows the old depot and an old wagon from days gone by. They are part of the Laws Railroad Museum and Historical site at Laws, California, just five miles north of Bishop on State Highway 6 and it will make an interesting side-trip for the multitude who traverse Highway 395 during their summer sojourns.

On the summer vacation theme, camping and nature programs in the Mt. San Jacinto Wilderness State Park at the top of the Palm Springs Aerial Tramway were announced by Park Ranger Ken Smith. These include 2 p.m. slide talks Saturday and Sunday; 3 p.m. nature walks Saturday and Sunday and for overnight campers, 7 p.m. campfire talks in the Long Valley camp any night the camp is in use. Long Valley Group Camp is open to limited groups of 50 on a reservation basis only. There is no charge for the use of the camp. Another new camp is Tamarack Valley Camp, 2 1/2 miles from Long Valley. Contact the Ranger Station, P.O. Drawer FF, Palm Springs, Calif. 92262 for reservations and information. The Tramway, incidentally, will be closed Tuesdays and Wednesdays for the summer season.

Someone told me that he thought *Desert* was a nice magazine but too dry. I think we've found the solution in a new author whose initial work appears under the title of "The Last of the Mountain Men." Bill Mack has a sense of humor and can put it down on paper along with considerable talent in sketching as is evidenced by the map accompanying the story. I hope you will agree with me and look forward to more of Mack, and hope that "The Last ..." will only be the first.

*William K. Hays*



# Rambling on Rocks

by Glenn and Martha Vargas

**I**N OUR last column we discussed agate as a form of quartz. There are other forms of quartz we plan to describe in future columns. To make the story of quartz even more interesting, there are a number of other minerals that are nearly identical chemically with quartz, but have other characteristics that set them apart. Opal is the most common and interesting.

Opal, like quartz, is a chemical compound of one atom of silicon and two atoms of oxygen ( $\text{SiO}_2$ ), but also has the addition of a molecule of water ( $\text{H}_2\text{O}$ ) attached to each silicon dioxide molecule. The mineralogist writes the formula as  $\text{SiO}_2\text{-H}_2\text{O}$ . The water is not intermixed with the quartz, but is a separate entity attached to it.

All of the molecules in opal evidently do not have water attached to them. The highest amount of water is about 13 percent. This variation is quite important, and will be discussed later in this column and in later columns.

The addition of the attached water produces a mineral entirely different from quartz. At one time opal was thought to be a form of quartz, but investigations have proved that it is a separate mineral. Opal never forms crystals, and its hardness is about 6 in comparison to 7 of quartz. Opal has a lower specific gravity than quartz and thus is lighter in weight. Specific gravity is the measurement of weight when comparing two articles of the same exact size. The above differences between opal and quartz are the most pronounced, but not the full list.

The most important characteristic of opal, at least in the minds of most people, is the ability to show rainbow colors within the material. This is sometimes, (but erroneously) called fire. Opal with

this play of colors should be correctly called precious opal. Fire opal is a red or orange material with a play of color, and is a type of precious opal. The most famous location for precious opal is Australia, with much of the rough material and gems presently on the market originating from there.

If we can forget about precious opal for a few minutes (this is difficult to do), we will find that there is another class of opal known as common opal. Generally, any opal that does not show color play, can be classified as common opal. Within this class are many sub-classes. If the material is orange or red, it is called cherry opal. If it is a colorless coating on rock surfaces and resembles drops of water, it is called hyalite opal. If it is the agent that has helped to preserve what is commonly known as petrified wood, it is known as wood opal. This list could go on. Each form of common opal has a color, surface texture, or impurities that sets it apart from the others, but the basic ingredients are still the same: a silicon dioxide molecule with an attached water molecule.

The formation of opal is evidently very similar to that of quartz. Solutions of a high temperature are introduced into a rock formation and, upon cooling, the silicon dioxide molecules cannot remain in solution and are deposited on the rockwalls. There is one basic difference; for some reason not fully understood, some of the silicon dioxide molecules have an affinity for some of the water in which they are dissolved, and carry them over into the deposition. It is obvious that the affinity must be present before the temperature has dropped to the point of deposition, and not afterwards. If this were not true, the mineral deposited would be quartz, which as soon as it is formed, is completely stable and could not be altered by the addition of water.

This deposition of opal can take place within the small bubble-like spaces in lava, or as seams in other rocks, much the same as agate. The opal may be injected into a fossil bed and be found as a filling in cracks, or even as the filling of clam or snail shells. This happened in Australia. In this case, the calcite (limestone) shell of the clam or snail had been dissolved away before the opal-bearing solution was injected into it. The sight of one of these shells, perfectly

preserved to the finest detail, and blazing with all the colors of the rainbow, is nearly too much to believe.

The reason for the play of color in precious opal has been pondered, discussed, argued and investigated for as long as opal has been known. We are not sure that it has been correctly explained as yet. Recent investigations in Australia have shown opal to be made up of clusters of extremely small spheres, visible only under extremely high magnification. These spheres are laid out in rows, with many parallel rows making up the mass. Some of the rows have spheres missing here and there, with the rows losing their precision. This lack of precision probably accounts for the lack of crystals or any regular outward form. It also may account at least in part for the play of color.

All of these unseen, but definite, characteristics are probably the result of the attached water, and the variation of the amount of water in turn undoubtedly has an effect on the mysterious play of color.

The amount of attached water has other effects on opal. We will repeat that the water is not chemically part of the silicon dioxide molecule, but remains as a separate water molecule. As we all know, water evaporates, and this is the most noticeable effect. Those opals with the water percentages nearer to 10% show this evaporation greater than those of lower percentages. When the water evaporates, the opal does not turn into quartz, but instead it leaves a small opening or weak spot. These spaces left by the evaporating water are joined by a crack, and given the correct amount of time, the opal may fall into a number of pieces. We have observed—and heard of—many fine opals that have done exactly this. This very undesirable feature has, in part, accounted for the supersti-

*Continued on page 38*

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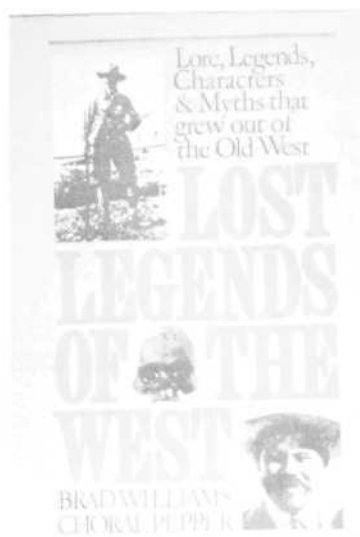


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The story behind California's lost Cherokee diamond mine, the lost secrets of Charles Hatfield—super rainmaker, who twice nearly washed San Diego off the map, the lost site of the Calaveras skull, and the mystery of the Port Oxford meteorite are but a few of the phenomena discussed.

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## Book Reviews by Jack Pepper

### THE WONDERFUL PARTNERSHIP OF ANIMALS AND MAN

*By K. L. Boynton*

*Illustrated by Wendell K. Hall*

This book should be read and reread. It graphically and dramatically tells the story of how life on earth developed through the ages by plants and animals working together and how it is this same partnership that keeps it going today. It shows how man—the late-comer in the partnership—is at last learning to do his share.

It introduces readers to fascinating facts about their environment, facts that will open their eyes to what even very tiny animals are doing for them every day. It ties these facts together in a quickly understandable pattern that shows why this valuable help must continue, and why misuse of the earth by pollution and thoughtlessness must stop. If this misuse does not stop man will destroy his partners, himself, and bring to an end all life on earth.

We are exceptionally proud Mr. Boynton contributes a monthly article to *Desert Magazine* on animal life such as the one in this issue on the Poorwill. He not only is an authority on life sciences, but also has the writing ability to present technical and complicated ecological matters in such a way the layman can absorb them through the fascinating presentation.

During the past 20 years of professional science writing for the lay reader, his work has appeared in magazines, books, anthologies, yearbooks, school texts and in Braille. He is a former staff member of the Field Museum of Natural History in Chicago and a former assistant director of the Chicago Academy of Sciences.

Mr. Boynton said he decided to write *The Wonderful Partnership of Animals and Man* because "nobody can expect

anybody to understand why pollution is going to be fatal, and why the environment must be protected, if they don't know how the great world of nature works."

The book is beautifully illustrated by Wendell K. Hall, who is nationally recognized for his ability to bring animal drawings to life. Cooperating with "Give The Earth a Chance" and other similar programs, the book is specially priced, below cost "to give the greatest number of readers—young and old—the opportunity of using it for a better understanding of the Good Earth. Large 8 x 11 format, heavy paper, 48 pages, \$1.00. Highly recommended for anyone who has an interest in staying alive.

### IN THE SHADE OF THE JUNIPER TREE

*By Katherine and Edward Ainsworth*

Of all the dynamic characters in California's dramatic and colorful history, none stands out more vividly than Junipero Serra, the lame Franciscan monk who forged the early links in the California mission chains.

A man of tenacity and courage, Father Serra devoted his life to a sublime and unquenchable faith, making immeasurable contributions to America's spiritual and cultural heritage.

After years spent as a theologian and professor of philosophy at Spain's University of Palma, Father Serra was sent to Mexico in 1749, beginning a spiritual adventure of hardship and privation that lasted the rest of his life.

Many years were spent in Mexico where he worshipped and lectured. At the age of 55, almost crippled by an ulcerated leg, he set out once again, this time with an expedition that traveled almost 1000 miles up the California peninsula to settle San Diego and Monterey.

One of the most exciting parts of the book is the vivid account of the arrest and expulsion of the Jesuits from Mexico by King Charles III in 1767.

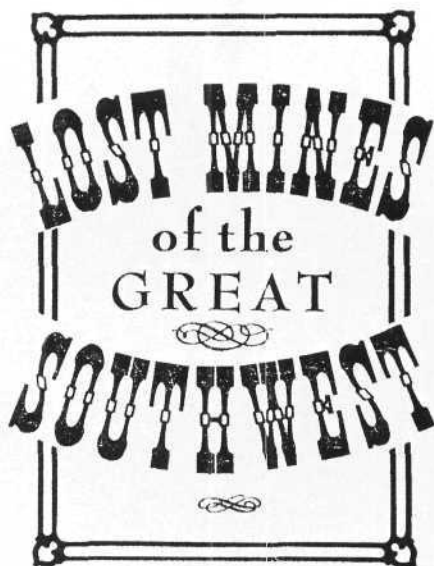
*In The Shade of The Juniper Tree* was finished by Katherine Ainsworth after the untimely death in June of 1968 of her husband, Edward Ainsworth, noted historian and columnist for the Los Angeles Times. Hardcover, 199 pages, \$5.95.



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*Geologist Baylor Brooks inspects  
part of the stone fence built by a frail  
woman whose strength came  
from inspiration.*

# Stone Monument to a Dream

by Walter Ford



**D**URING THE latter part of 1941 I stopped in Daggett, California to visit the late Henry Britt. Henry was a long time desert prospector whose interest in mining dated back to 1905 when he was a participant in the roaring activities of the Death Valley boom town of Skidoo. I was particularly interested in mining operations in nearby Ord Mountains and it was during our discussion of that area I first heard about Mildred Willis.

"Probably you never heard of Mildred Willis," Henry said. "She didn't go in for mining, yet had she expended the 10 years of effort at prospecting she put into her home site she might have become wealthy. However, Mildred seemed to believe that money had only a minor relation to happiness and remained content in shaping up her dream. Take a run up to the Ord Mountains sometime and see the results of her labor."

In the spring of 1946 I made the long delayed trip to the Willis homesite by way of San Bernardino County's Lucerne Valley. As I approached the area I recalled Britt's reference to Mildred's ten-year efforts and wondered what form

*The remains of a broken dream. Cattle pens are in foreground.*





they would take, when suddenly long lines of massive stone walls appeared. Walls which ran for hundreds of feet as true as if they had been laid out with an engineer's transit. Other walls built with same precision formed small enclosures.

With a cross section of 16 square feet the walls contained approximately 10,880 cubic feet of stone weighing roughly one million pounds!

I felt certain Henry Britt had not misled me, but at the same time it seemed unbelievable that some of the larger stones could have been handled by other than a husky man. I went down into Daggett, looked up Henry Britt and expressed my doubts to him.

"Yes, the walls were built by a woman," he said, "and a rather small one at that; five feet, three in height and weighing about 125 pounds. There have been many others just as incredulous as you who have asked the same question. Mildred's husband, George, had lost the use of an arm in an accident some years back, so the only help he could give was to drive the horses that hauled the rocks. They had built a sort of drag on which Mildred would load the rocks, then unload them where needed.

"I met Mildred and George Willis for the first time when someone staked them to a few cattle near Yermo. George had been a mining promoter in Nevada, but apparently his luck ran out. They came down here to make a new start by setting up a camp along the Mojave River. They were doing very well until they were washed out by a flood.

"I next heard that they had moved up to the Ord Mountains. That was about 1915. There was plenty of water and good grazing up there, which made it ideal cattle country. Mildred dug a

well and struck water at 20 feet. I was working at Camp Rock mine at the time and often walked the seven miles between to visit them. Soon after they got settled Mildred built their temporary home. It was little more than a stone hut about ten square feet, but it provided shelter while her dream was taking form.

"Visitors up there often ask me if Mildred had a definite plan in mind and I tell them that she knew exactly what she wanted to do. She used to show me pictures of Scottish castles from which she hoped to model her home. She loved

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flowers and intended to make her desert kingdom bloom like a paradise, but before she could make it a reality she needed walls to keep out cattle. The walls you saw up there are the results of her spare time work. I say 'spare time' because her real task was taking care of her crippled husband and 300 head of cattle.

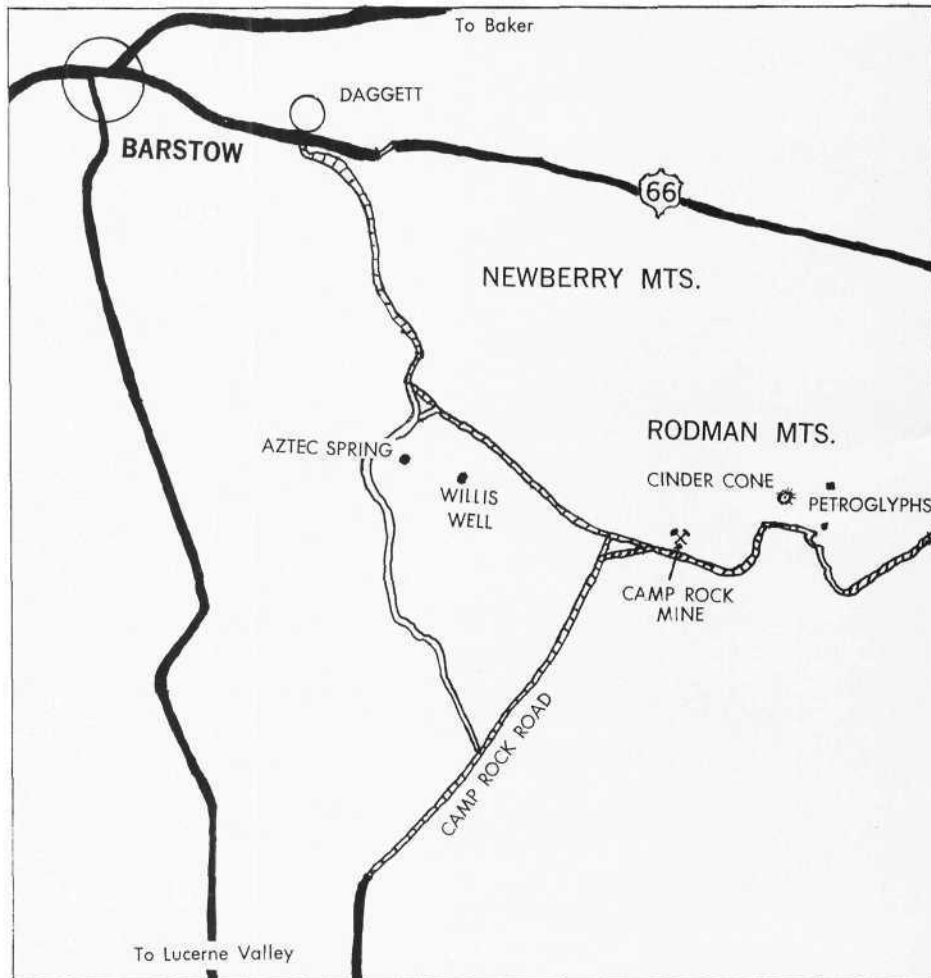
"One day George became ill and had to be taken outside for medical attention. Fortunately, Mildred was able to sell their cattle for several thousand dollars. Perhaps it was her intention to return and complete her dream after George recovered. I don't know. Sometime after they left word reached me that George had passed away in San Diego. Mildred never came back to the desert."

Since that day when I first saw the Willis homesite I have made several return trips to the area. Other than the increasing array of debris left by careless campers, there has been little visible change over the years. Mildred's walls still stand and perhaps will remain for decades as a monument to a woman's dream and the untiring efforts which al-

most made it come true.

Students of early Indian culture will find much of interest at the Willis homesite. The many petroglyphs which appear on the granite boulders seem to be the art work of nomadic tribes that used the area as a watering place. The habitable caves I explored indicated past occupancy, but do not contain the usual debris found in permanent Indian camp sites. Part time inhabitants could have been roving groups of Chemehuevis. Hemmed in by powerful Yuman tribes along the Colorado River and Shoshonean tribes on the western rim of the Mojave Desert, the Chemehuevis were forced to drift around between the two barriers, eking out their subsistence as they moved along. They seemed to have been peculiarly addicted to scratching symbols on smooth rocks near their temporary camp sites, such as those at the Willis site and other Mojave Desert areas.

The Ord Mountains have long been a mecca for seekers of earth bound riches. Prospectors in the region, known to contain deposits of copper and gold, have been many, but one who stood out





from all of the others for ingenuity and resourcefulness was one Brown Osborne. Dix Van Dyke, noted Mojave Desert authority, told me about Osborne's activities.

Around 1881 Osborne acquired a group of mining claims in the Ord Mountains and soon after employed a group of Chinese workmen to build a road from Daggett to his property. Before the project was completed his interest lagged and he took on a contract to haul salt products from Danby Dry Lake to the railroad at Danby. While on this job he designed and had built a steam tractor to which three steel wagons were coupled. Each wagon had a steam cylinder geared to its rear axle. Steam was piped from the tractor to each wagon, and in spite of its unorthodox construction the combination worked very successfully.

Soon after misfortune overtook him and for years he remained almost broke. Then in 1906 he made a comeback. He sold the Tecopa mines for \$350,000. The Ord Mountains road was rebuilt, the steam wagons were brought to Daggett, and mining operations were resumed. But now Osborne was an old man. The energy and drive that characterized his former activities were no longer with him. He carried on in a desultory fashion for a while, then in 1913 he passed away.

A trip through the Ord Mountains region offers much in the way of scenic grandeur and interesting spots to explore. Its elevation of 4000 feet assures rainfall enough to provide a dazzling spring display of wildflowers and cactus blooms. And at elevated points along the road you can get an awesome view of nearly the entire Mojave Desert, which if the air is clear may extend to Charleston Peak, Nevada, 130 miles away.

The Willis homesite may be reached by following the improved gravel road which extends southward from Daggett, then swings southeast to Camp Rock, a placer gold operation 20 miles from Daggett. At approximately 14 miles along this road, wheel tracks leading to the right mark the Willis turn-off. The area may be identified by a hill of huge boulders. The location is marked as "Willis Well" on some road maps, but the original well has been choked with debris for many years.

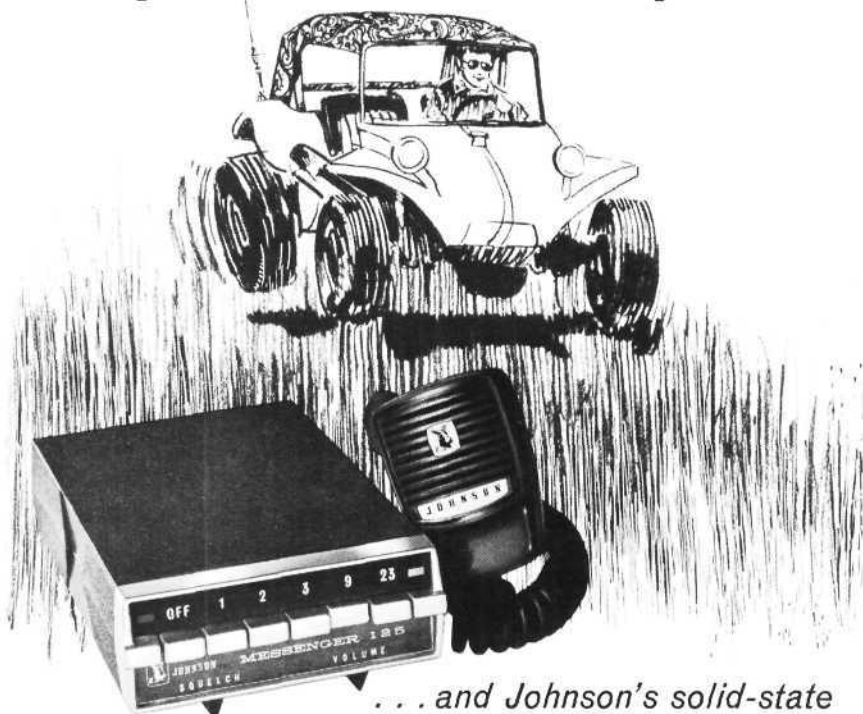
About 4.6 miles east of the Willis turn-off a road formerly ran northward through an intriguing area known as Kane Canyon. Early day road maps show a route through the canyon as part of a short cut between Newberry and Victorville. Kane Spring 8.5 miles down the canyon was an important waterhole along the route.

There are many stone formations in the canyon, the most striking of which is a life-like form of a huge camel resting above the canyon wall. Another interesting geological phenomenon are the re-

mains of a lava dam which in ages past created a large lake from impounded storm waters. Eventually the dam was swept aside, leaving only the side abutments which are still visible today.

I was told in Daggett that Kane Canyon is part of a game refuge, which could account for its abundance of wildlife. On a previous trip through the area I saw three Bighorn sheep, a kit fox, and several varieties of birds. It's a good location for nature photography—and a fitting place to stop and contemplate the stone monument to a woman's dream. □

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# Thunder



THOSE ARE *Thunder eggs*," the sheepherder said and showed me a box of oddly shaped rocks with a strange pattern of irregular lines criss-crossing their surface. The rocks, which looked like something brought back from the moon, were actually volcanic geodes. Their hollowed interiors, filled with sparkling, quartz crystals, were enough to make a rockhound head for the hills. I learned they came from the west side of the Dugway Mountain range in northern Utah and two months later, on a beautiful spring day, I turned off State 36 at Vernon, Utah and headed west on a gravel road.

It's a little over 50 miles from Vernon to where two ruts leave the gravel road and wind northward over the desert toward the geode beds. This 50 miles is rich in history of the old West for most of the way the road follows the Overland Trail. The principal route used during the middle of the last century by prospectors and Pony Express riders, Indians and soldiers, and emigrants and outlaws traveling between Salt Lake City and the West Coast. Approximately every ten miles, at Lookout Pass, Simpson Spring, Riverbed, and Dugway Pass, a monument marks the location of a Pony Express way station and each place has a story to tell.

The Lookout Pass station, where travelers of the trail said goodbye to the Mormon settlements of Utah and looked toward California through shimmering heat of the desert, was located at the head of the pass, on the west side of the mountain. Not far from the monument, just south of the road, is a rock enclosed cemetery which marks the final resting place of a number of emigrants — and three dogs, pets of a lonely woman who lived in the pass and watched the world go by.

Simpson Springs, the last good water

for 100 miles was, and still is, an important stopping place. Good water is available and on a hot day one can get a drink from a flowing pipe or take a refreshing dip in a shallow pool below. The tumbled down walls of the old station, operated by "Wood-leg" Davis, can still be seen and picnic tables crouch under gnarled junipers that grow on the hillside.

Ten miles down the road a monument, on the banks of an ancient river, marks the location of the Riverbed station. Through this old channel, a mighty river once flowed and added its bit to

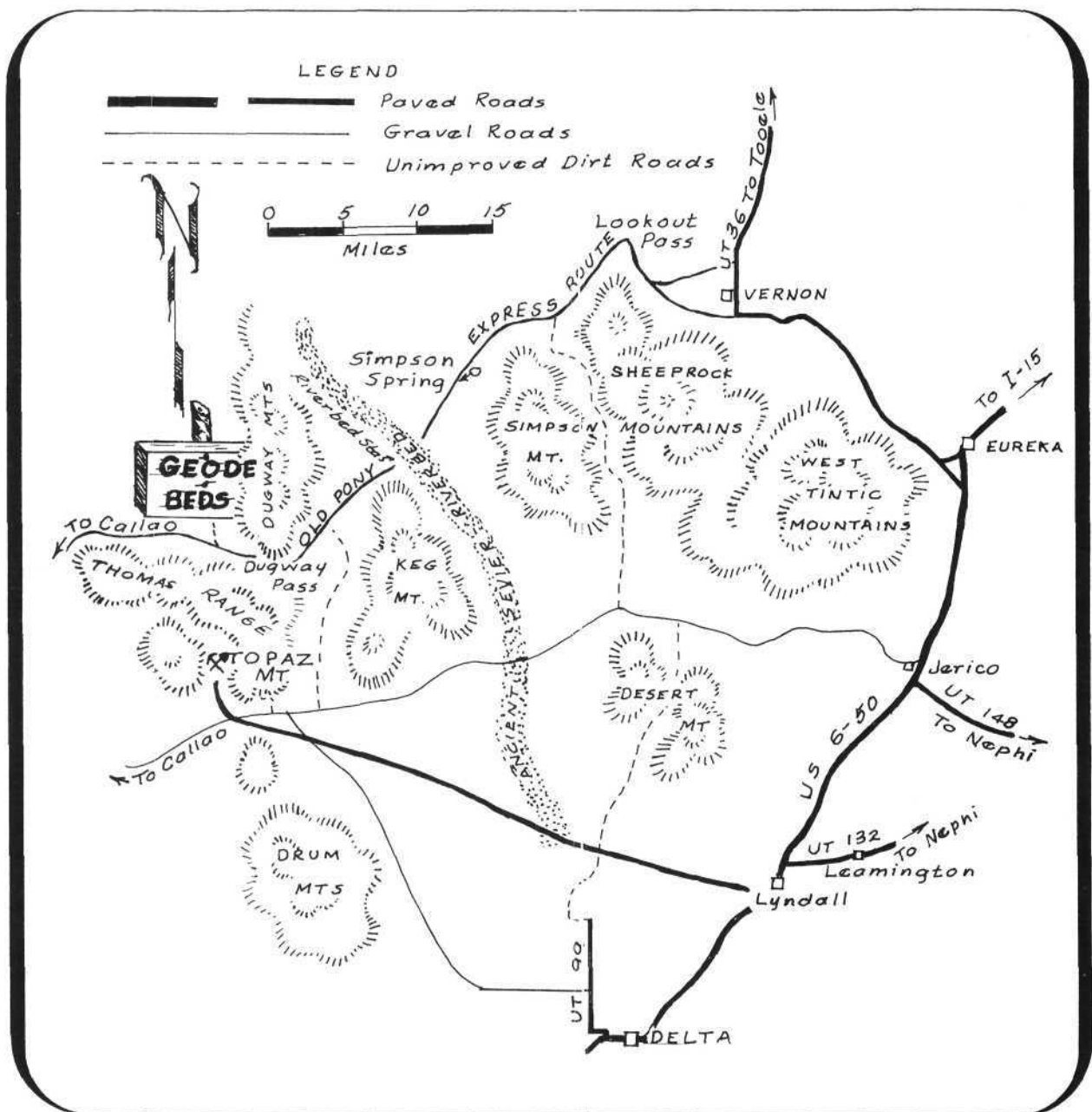
*Geodes in their natural state (upper left) range in size from a marble to a large potato. The interior of the brown rocks is a thing of beauty.*





# Eggs or... Moon Rocks?

by Earl Spendlove





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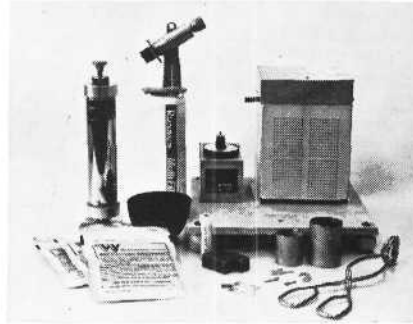
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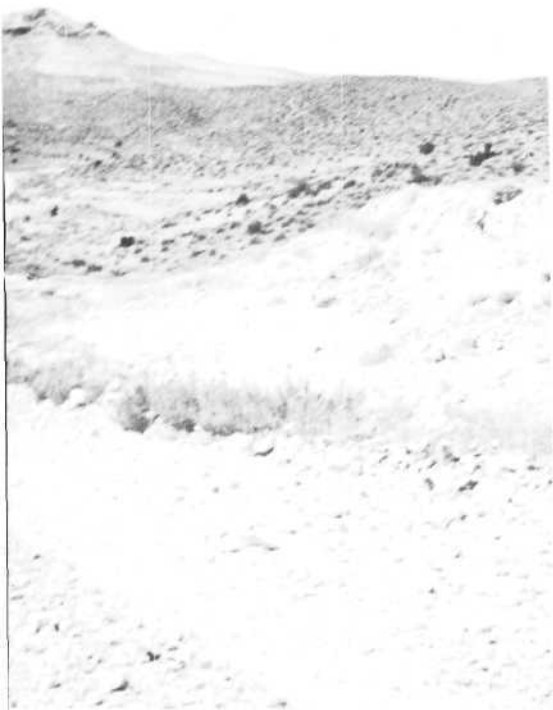


the briny inland sea, the great Salt Lake. Then one day, long before the dawn of recorded history, silt and gravel carried by the stream, blocked the channel and the ancient river, turned south and flowed into a land-locked basin, and created the Sevier River.

It was here, in the early 1860s, that a passenger killed the stagecoach driver and guard, took the gold from the strong-box, and escaped on a horse from the stagecoach team. He never lived to spend his ill-gotten gains, however, for Porter Rockwell, often referred to as the "Destroying Angel," took his trail and justice was meted out, without benefit of a judge or jury.

The next station, Dugway Pass, is ten miles to the west, and it's a fairly steep grade up the east side of the mountain. On the west, the road leads down through a draw where, on a snowy November day in 1851, Captain Absalom Woodard and three of his men were ambushed and killed by Goshute Indians. The Indians later reported a fourth man from the party, which was carrying mail from Sacramento to Salt Lake City, escaped the ambush, but never reached civilization.

It's four miles from Dugway pass to where a dim trail leaves the main road and meanders north through the rocks toward the geode beds. Keep a sharp lookout or you will miss this track. Once



*Looking west from Dugway Pass. Geode beds are about four miles from this point. An Indian massacre occurred here in 1841. Four white men were killed.*

by the Utah State Fish and Game Department and have evidently found a home in the barren, waterless wastes, for they are reported to be increasing. Ancient Indians once hunted rabbits and antelope along the foothills of the Dugway Mountains. My children have found several arrowheads fashioned from red and white chert by some long forgotten craftsman.

A good discussion of the what and how of a geode was given in the January issue of *Desert Magazine* by Glenn and Martha Vargas in their column "Rambling on Rocks." It's a lot easier to explain the hole in a doughnut than it is the hole in a geode, but everyone can enjoy the breathtaking beauty of a sawed and polished geode from Dugway Mountain. Under the rough exterior is a layer of banded blue and purple agate and the hole in the center is lined with sparkling, snow white or clear, six-sided crystals of quartz. Truly the inside of these scaly brown stones is a thing of beauty. □

on it, drive carefully for it leads you over rocks, high-centers, and through steep-banked, sandy washes. Two miles to the north, you should come upon a sturdy mailbox made from a heavy iron pipe. Inside is a book that says the Rock Arteseans of Utah have staked claims to the surrounding area and you are invited to dig, with hand tools, on their claim. There are other claims nearby, but the majority of the area is open range.

Digging with hand tools in the rocky, sun-baked, lime-cemented soil is hard work, but if you are persistent you can find several good geodes in a day. Some find an easier way. On one trip to the Dugway geode beds my wife and I came upon an encampment where a half a hundred happy rock hounds were having dinner. A small bulldozer had been at work in the bank of a nearby wash. A friendly man, with a stubby two-day beard, came out and invited us to join them. He said they were members of a Salt Lake City rock club and were paying the equipment operator two dollars each, per day, for doing the hard work for them. The man had ten or fifteen geodes to show for a half day's work.

There are other things of interest at the geode beds. Twice we have seen flocks of fifteen or twenty chukars scurrying through the bush. These slate grey birds were introduced into the area

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*Gold is found in the small banks along the creek. Dig around bushes and weeds. Be careful of rattlesnakes.*

# The Secret of the

ON MARCH 12, 1928, the ground began to tremble, and then it happened. The San Francisquito Canyon Dam split wide open and a wall of water, mud, up-rooted trees and boulders 185 feet high came crashing down the canyon. The thundering torrent traveled 65 miles to the coastal town of Montalvo. In its wake 600 homes were swept away and 500 people were killed.

The San Francisquito Canyon has had a long history of producing gold which dates back to the Civil War days. When the dam broke, this man-made disaster did in one hour what it would have taken nature one hundred years to do. The tremendous force of water released by the break literally washed the walls of the canyon down to bed rock and deposited the soil in the creek bed. It wasn't until the horrors of the tragedy had faded away that the secret of the great flood was discovered.



*The sluice box is a favorite means of extracting gold, just as it was 100 years ago.*

# GREAT FLOOD!

by Robert Topolse

Today the gold rush is still going on. A drive up San Francisco Canyon any Saturday or Sunday afternoon is like stepping back into the days of the '49ers. You will find every kind of gold-seeking device available working the creek, from dredge to hand sluices to dry washers. The truth of the matter is, they are all finding gold. After 32 years the gold is still there.

X I am going to tell you exactly where to find this gold. Drive up Seco Canyon Road into the Angeles National Forest. Seco Canyon Road is the San Francisco Road. After entering the Angeles National Forest, drive for four-tenths of a mile and stop. This is the gold area. The large creek bed is just across the road.

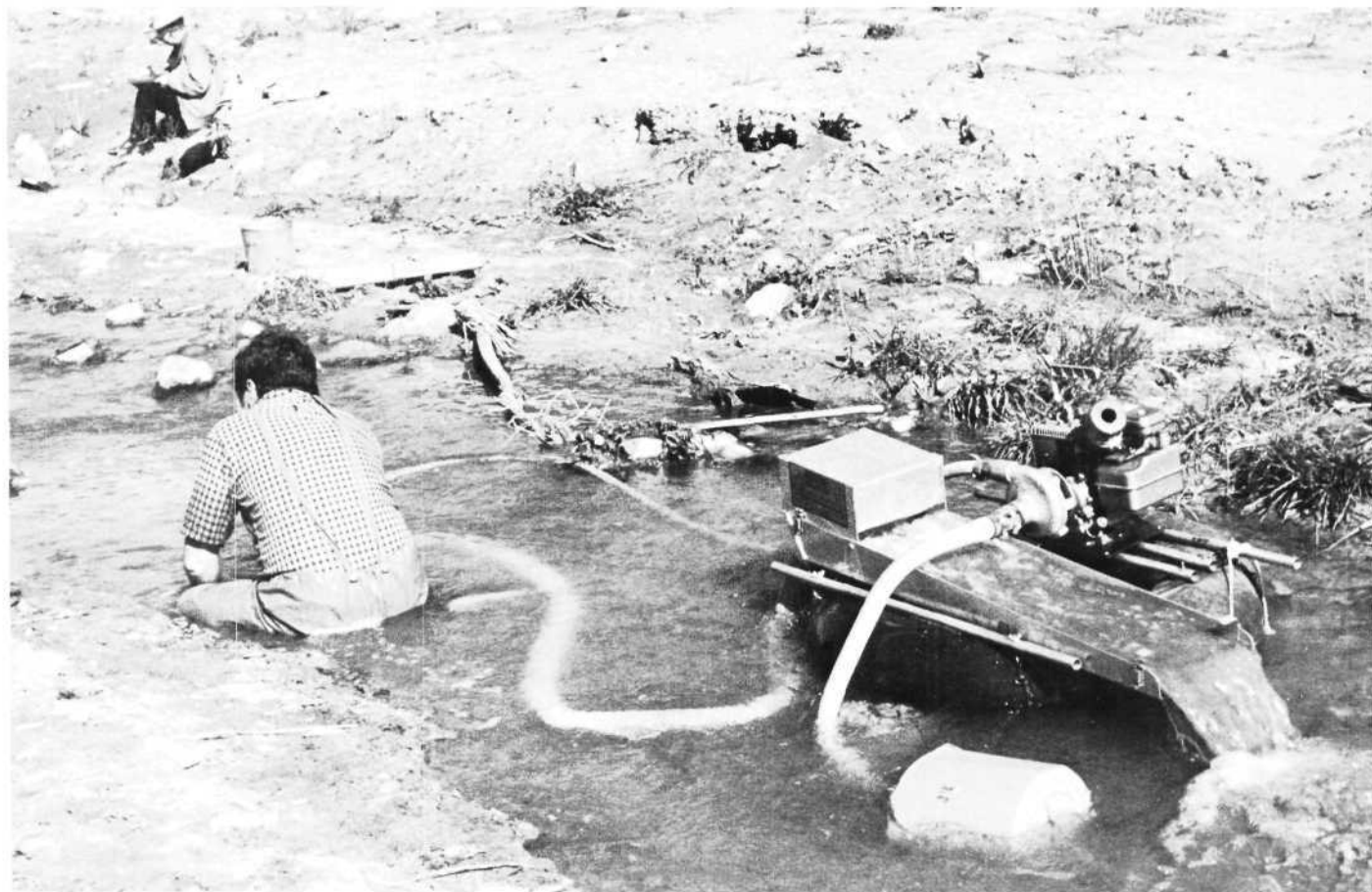
There is very little gold in the creek itself because the sands in the creek are continuously moving. Any gold present would settle on bed rock quite a way down. The real gold lies

in the creek banks which are about  $2\frac{1}{2}$  feet high and run along the creek. This is where the gold was deposited after the flood. There is very little water action on these banks so the gold is near the surface.

• Looking around you can see where people for years have been slowly eating away the banks. Dig around the bushes and weeds because the roots of these plants catch the gold during spring floods. Work the areas where there is an even mixture of sand and small gravel. The areas that are all sand are probably somebody else's tailings. Be careful when working around bushes. There are rattlesnakes in this area even though people visit the area quite often.

The gold is here, but it takes a lot of hard work to get it. You won't get rich, but if you want a couple of pennyweights to fill your vial, this is the place to come.

The secret of San Francisco Canyon is not how rich the gravel is, but how much gravel you move. □



*Weekend prospectors use equipment from simple gold pans to more sophisticated dredging machines.*

# THE LAST OF THE

Kit Carson and other mountain men of the 1800s fought hostile Indians and braved the wilderness. Following in their footsteps, Bill Mack also encountered Indians and conquered the wilderness in this epic tale of "the last of the mountain men."





# MOUNTAIN MEN

by  
Bill  
Mack

**T**HE TAWNY figures of the two Indians crouched low in the late afternoon shadows. The tall, pencil-thin mountain man halted his loping gait as his keen eyes spotted the lurking figures. For several tension packed seconds pale-face and redman eyed each other. Suddenly the taller of the two Indians let out a mighty yell and quickly stepped forward. At the same instant the mountain man also moved toward the Indian, raised a steady brown hand and grasped the proffered bottle of white port firmly by its neck.

White port? Mountain man? In a very loose manner of speaking, yes. I was the mountain man and this was my first encounter with Indians. And it all took place in April of 1969.

It began when friends and I were discussing the feats of such greats as Jim Bridger, Kit Carson and others of their breed. Ill-advisedly I defended the position that it is still possible to walk the Sierra Nevada mountains with a pack, gun and little else and survive handily. As the discussion waxed warmer I suffered from an age old, and with me, chronic problem.

In a burst of over enthusiasm I let my brave mouth run away with my chicken fanny and before I really realized what I was doing, I found myself committed to making the test. My erstwhile friends gleefully agreed to the scheme, and as reason slowly returned to my addled brain I began to think of the problems.

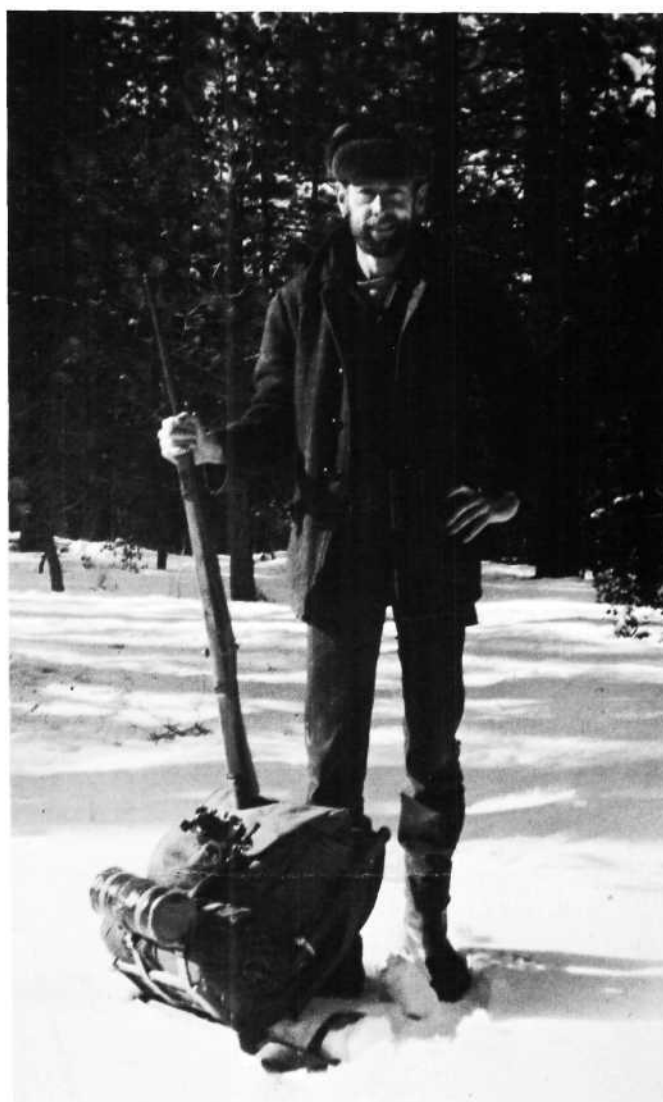
Even in April, the higher elevations of the Sierra Nevada mountains are deep in snow. The lower land is mostly fenced for cattle, guns are not allowed in National Parks, and I was out of shape. I was beginning to develop a disease first discovered by Woody Allen who diagnosed it as "cerebral hemorrhoids." But I was committed.

Preparations for the trip were quickly completed. It was agreed I should carry a small food supply as an emergency ration. A pound of jerky, three small cans of gelatinous mixture that some slick oaf had sold as pemmican, a small bag of mixed pepper and salt, and 25 sugar cubes. It may not have been very sporting of me, but I snuck a few matches, a Sterno stove, three chocolate bars, a plug of tobacco (which I consider authentic gear) and a Harold Rob-

bins novel which was hot enough to fry eggs on.

Other equipment consisted of a small knapsack, light weight sleeping bag, hunting knife, mess kit, compass, hand-line with three hooks and a British Enfield 303 with 20 rounds of ammunition.

The route selected was from the outskirts of the historic gold rush town of Mariposa, California, to the valley floor of Yosemite National Park, then back towards Mariposa and a rendezvous at



*The author's wife took this photo of the "intrepid mountain man" at the end of his 90-mile trek.*

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Mt. Ophir, the site of a defunct private mint of '49er days. It would be a round trip of roughly 90 miles. As proof of my prowess I was to bring back a souvenir postcard that could be purchased only in the gift shop at Camp Curry on the valley floor. As is readily discernible, my friends have a great respect for my integrity, honesty and general strength of character. They also re-inforced these attributes by restricting my pocket money to a staggering 50¢, which, after the purchase of the post card in Yosemite, would leave me 40¢ for a night of lusty frolic in some remote mountain trading post. Incidentally, that night of wild abandon never took place because I lost the money on the return trip. Somewhere in those hills, pardner, lies the lost Mack treasure.

I had agreed to keep off of main roads, although it was agreed that unused logging roads were okay. Unfortunately, a good share of the proposed route consisted of private cattle ranches and a certain amount of trespassing was necessary before I crossed the boundary of the National Park. As it turned out, I was stopped only once by a fence rider who was more curious than belligerent. He heard my story out and invited me back to the ranch for dinner. Even Jim Bridger wouldn't have turned down a hot, home cooked meal so I readily accepted his friendly invitation. That night, Earl, my new found friend, and I poured over the map of my route. He pointed out several short cuts and I made the alterations on my route map. He was a great help and a real nice guy. I can't use his name, but if he reads this, I want to thank him again.

The second day of my trek revealed my first big mistake. A British 303 is a large calibre military rifle of tremendous power. What it did to the unfortunate squirrels chosen for my larder was indescribable. I finally learned to fire just in front of the squirrels, a technique I had read about but only half believed possible, called barking. It really does work. A shot placed in front of the animal or just below him on his branch perch stunned the squirrel and in several instances, killed it. California squirrels are not considered gourmet delights but they are palatable, if a bit stringy.

A portion of my route led me along the turbulent Merced River and for-

tunately, while trout were scarce, white suckers were plentiful and easy to catch. They loved the pemmican — only a sucker could. Water was never a problem, but I was surprised how quickly the monotony of my diet was getting to me. I tried a few water plants, and although they were probably nourishing, they tasted like the remains of Saturday's lawn mowing. Berry bushes were just beginning to flower but the pickings were slim. Most of my meals consisted of either sucker, which is pretty good but bony, and squirrel, which is all right but tough.

On the fourth day out I had my encounter with the Indians. I was trudging up a small rise when I rounded a large boulder and met two of the drunkenest Miwok Indians those old mountains had ever seen. They were ostensibly mending a fence, but it looked to me as if they were working a great deal harder on a half gallon of white port. They must have realized that to trifle with a lean and hungry mountain man would be sheer folly, for instead of lifting my scalp in the traditional manner, they offered me a slug of the scalp lifter they were drinking. In the best mountain man tradition I made peace with the redskins, but after a few jolts of that pop-skull I plunged back into the forest gloom. Some day I'm going back and see what they did to that fence.

The next day was a day of shame. While I hardly qualify as Mary Poppins, a thief I'm not. But the loneliness of the mountains and my innate rottenness got to me. I stole. The circumstances are sordid, but in all good conscience, I must confess.

I was following a small stream when my keen mountain senses detected voices in the distance. This was not too difficult as the sounds were coming from two amateur gold panners who were shouting at each other about their finds. I crept silently past them and at the next bend of the stream came upon a Jeep station wagon, tailgate down, parked along side the stream.

On the lowered tailgate was a huge plastic ice chest filled to overflowing with chilled cans of beer. It must have been my association with those dissolute aborigines of the day before that caused my behavior. With a stealth that would have brought tears to the eyes of Daniel

Boone I crept forward. A few moments of indecision, a rapier-like thrust of my bony arm, and I had snatched a can of beer. I slunk back into the mountain shadows and enjoyed that beer like none I have enjoyed before or since. If one of the readers happens to have been the victim of my cupidity, I am willing to replace the stolen beer if he can rightfully prove that it belonged to him. Brewing date and packaging serial number will be considered ample evidence.

As my route took me higher into the mountains, patches of snow began to appear. The light weight sleeping bag was just a shade too light and the nights were chilly. Firewood was plentiful, however, and I managed to keep fairly comfortable. I had adjusted my pace to a slow trudge after the first day.

That first day I had tried to reach my destination as quickly as possible and had, as a result, pooped myself out. So I started taking it slow and easy and enjoying the wonderful scenery. Because of my route I rarely saw another human, but as I neared the park boundary deer, bear, even coyotes, were everyday sights. As they were park bears they evidenced little fear of me and one night tried to raid my knapsack which I had prudently hung in a fir tree.

The entire trip took eleven leisurely days. As much as I would like to recount the harrowing dangers encountered, in all truthfulness I have to admit that there weren't any, unless trying to buck the throngs of tourists at the Camp Curry gift shop could qualify.

On the return trip I uncached my rifle at the boundary of the national park and headed west, clutching the gaudy postcard and full of smug triumph. But I had plenty of time to think. The trip had proved a lark, but under different circumstances, could have been a mess.

The real mountain men met, and conquered the Sierras, under real handicaps. Hostile, not drunk Indians, extremes of weather, no prepared foods, no sleeping bags, no efficient bolt action rifles and most importantly, no friendly faces to turn to in case of trouble. They must have been made of rawhide and gristle with a generous sprinkling of real grit.

On my return home I prepared a plaque for my postcard. Of the very

finest walnut, complete with a plexiglass cover for the card and a brass plate, suitably and modestly inscribed "the LAST of the big-time mountain men." It should hang in a place of honor in my home. But it doesn't. Somewhere between my rendezvous and my home I lost the authentic postcard.

Admittedly, I have secured a substitute, but the plaque hangs in my den, next to my discharge from the Marines, and my authentic and hard-earned certificate from Jack Armstrong, The All American Boy Club's heroic and fearless leader. It should hang in the most favored spot as I ate at least six tons of Wheaties to get it. But it all ties in together. Who can beat an ex-Marine stuffed full of Wheaties? No wonder I'm the mountain man I am. ☐



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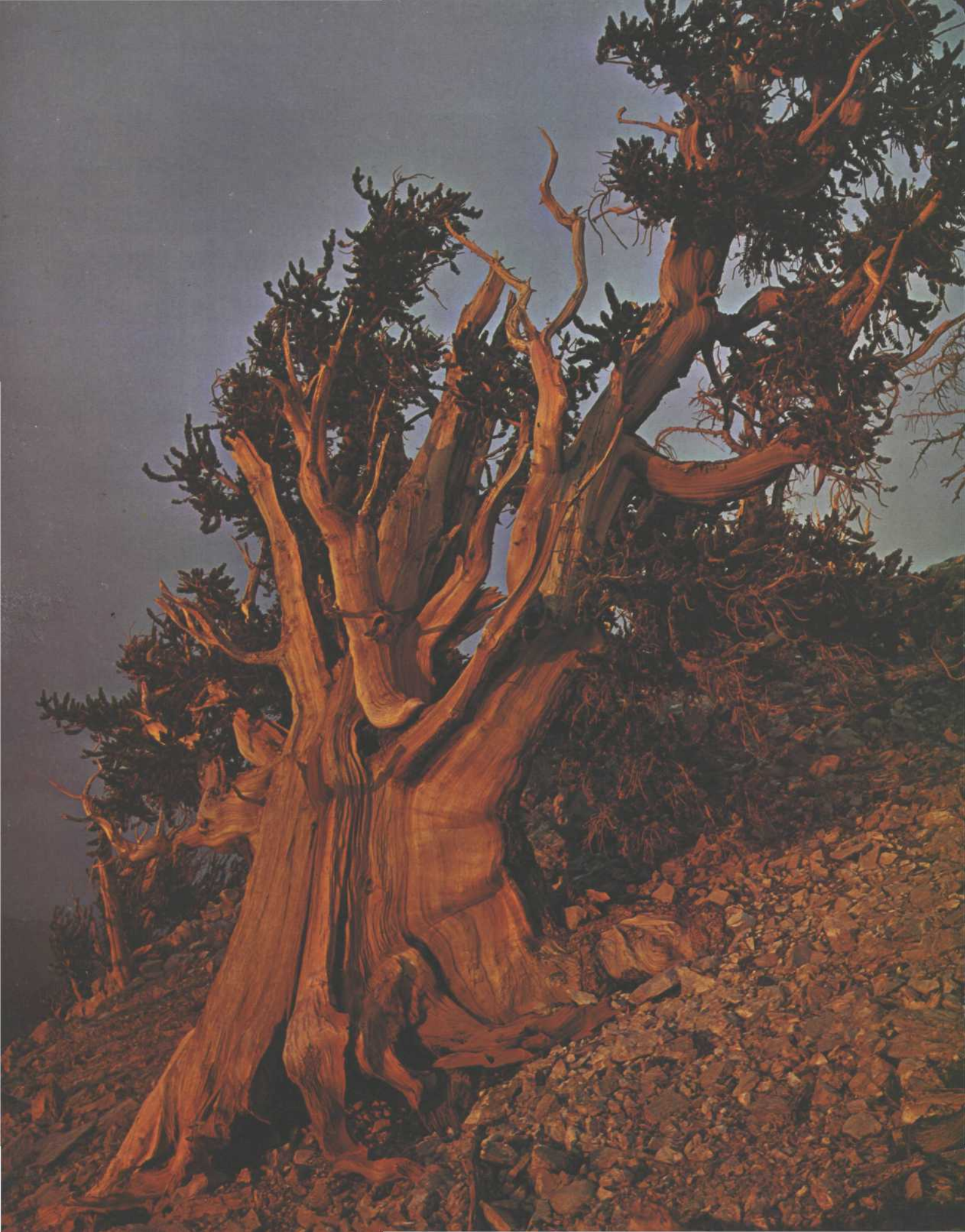


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# The Ancient Bristlecone



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*Color photo of bristlecone pine taken by David Muench of Santa Barbara, California.*

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*Text and black and white photos by Warren and Barbara Transue, of Los Angeles, Calif.*

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**R**ESPECTED AND feared for her inexorable pattern of life and death and her oftentimes cataclysmic accomplishments, Mother Nature in some instances has seen fit to pause in her unwavering path of change down the centuries.

She decided the salamander would survive intact from his earliest advent upon earth to the present day. The coelacanth, a prehistoric fish until recently believed to have been extinct for 70 million years has lately been rediscovered in a form little changed from its ancestors of 300 million years ago.

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gift of longevity has been bestowed in abundance upon certain members of the world of trees. Older than the oldest sequoia, more venerable by far than Mexico's famed tule tree, are the ancient bristlecone pines of the American Southwest.

The 4600-year-old Methuselah Tree in California's Ancient Bristlecone Pine Forest was sprouting when the Egyptian pyramids were being built. Its living but silent neighbors have guarded the bleak, windswept hillsides for upwards to forty centuries, and continue to produce fertile seeds for the perpetuation of the species in ages yet to come.

Forest Service personnel say that in many of the trees only ten percent of the bulk is living tissue, but even this little bit is enough to insure a bristlecone in-

dividual's life and vitality. Curiously, tests have proved that seeds from the most ancient ones produce seedlings fully as virile as those from "youngsters" only a few hundred years old.

Preliminary studies by Dr. Andrew Ellicott Douglass in the early 1900s were continued by his protege, Dr. Edmund Schulman, who made the *Pinus aristata* his life's work. Dr. Schulman dated tree specimens with a Swedish ring borer, a hollow drill which can plug a tree right to the core without permanently damaging it. From these plugs, which are examined under extreme magnification, a tree's rings can be counted and its history traced—wet and dry years, fire and insect damage.

National Geographic Magazine of March, 1958, carried a fascinating ac-

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count of the bristlecone studies; the author was Dr. Schulman, whose text was beautifully illustrated with fine color photographs by W. Robert Moore. As early as December, 1929, the Geographic had documented studies of the bristlecone in an article by Dr. Douglass titled "Secrets of the Southwest Solved by Talkative Tree Rings." Finally in 1958, the year of Dr. Schulman's death, the Forest Service set aside a Botanical Area of 28,000 acres between California's Inyo and Mono Counties to be administered by it for "scientific study and public enjoyment."

Removal of living and dead plants is forbidden, except by written permit to accredited institutions who wish to pursue scientific study of the trees. Neither camping nor fire is allowed, and Indian artifacts must be left undisturbed. For campers, a comfortable and scenic spot outside the classified area — Grandview Campground — is within a few miles of the magnificent Sierra View and the entrance to Schulman Grove.

A day is sufficient to take in most of the highlights of this starkly beautiful country. In Schulman Grove, be sure to take the half-mile-long path that leads to Pine Alpha, 4300 years old and so named because it is the first bristlecone to have been dated over 4000 years. The other Schulman Grove self-guided walking tour is a two-mile one—you should have an extra day for this—and takes you to Methuselah, world's oldest known living tree at age 4600.

*Lonely hillside is typical  
of the area in which bristlecones  
have survived for more than  
4000 years.*



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*The Patriarch, world's largest bristlecone, is more than 36 feet in circumference.*

If you have time to camp overnight, your sightseeing can be a bit more leisurely, especially the 12-mile drive on rugged unpaved road to the northernmost section of the bristlecones, Patriarch Grove. Here at an altitude of over 11,000 feet dwells the Patriarch in all its ancient and dramatic majesty. Its 36-foot-eight-inch circumference makes it the world's largest bristlecone pine.

To see living trees which were already over fifteen centuries old when Egypt's Cleopatra reigned, from Big Pine on U.S. 395 take the paved road northeast to the Westgard Pass Road. Drive about 11 miles into the White Mountains and you will come to a sign designating the Ancient Bristlecone Pine Forest. Don't forget to stop at the fossil area where you will be permitted to take a souvenir piece of the fossilized marine material if it is not for commercial use, and by all means take note of the pinyon trees en route to Schulman Grove—their nuts were once a staple food of the Paiute Indians.

The Ancient Bristlecone Pine Forest is normally open from June 1 to October 30, after which time it is likely to be snowed in. For some lively research into ancient history, spend a day with our venerable bristlecone pines. □



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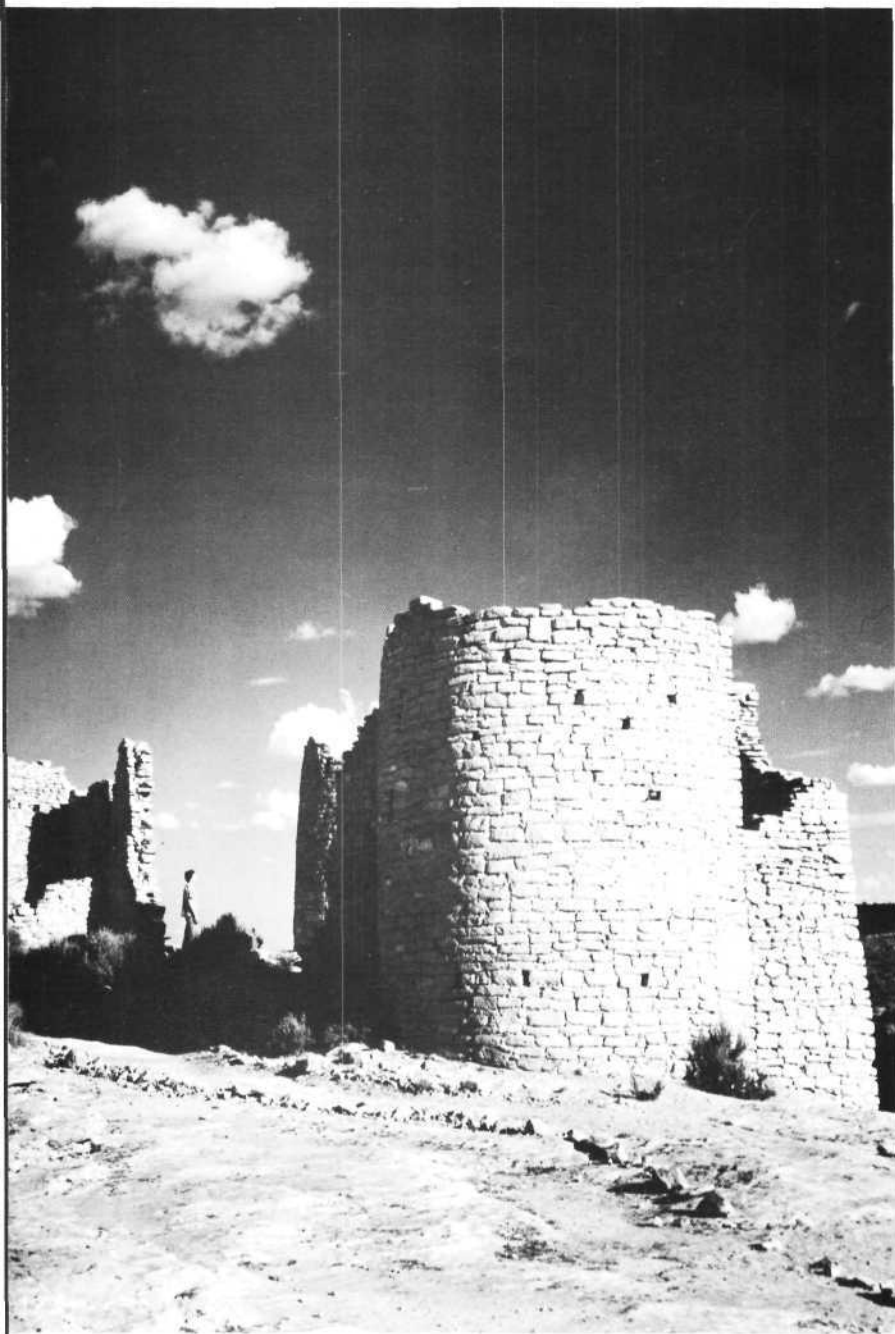
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# HOVEN



*Silent structures of Utah's prehistoric past.*

by Elizabeth Campbell

Photos by Robert Campbell

**H**OVENWEEP, A Ute Indian word meaning "deserted valley," is a six-section National Monument in southeastern Utah and southwestern Colorado, and is noted for its several different kinds of towers. There are other ruins to explore: "apartment houses," or large pueblo-villages, cliff dwellings, storage rooms and kivas, or ceremonial rooms. All are excellent examples of the masonry

that is typical of the Pueblo Indian builders.

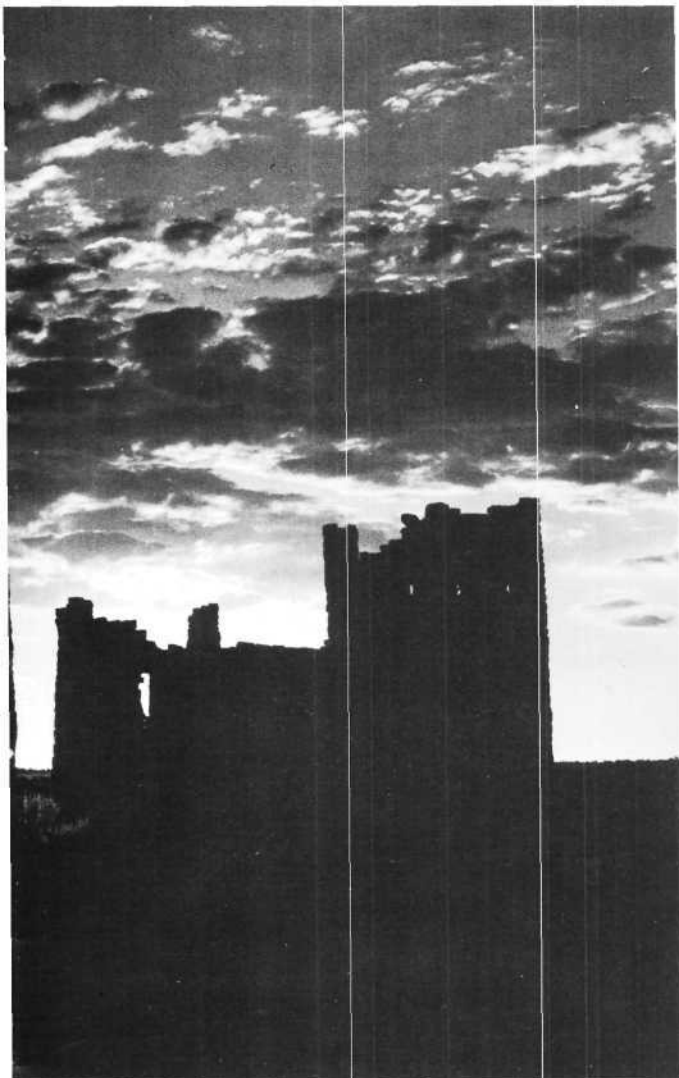
The Cajon Group in Utah and the Holly, Hackberry Canyon, Cutthroat Castle and Goodman Point Groups in Colorado are virtually inaccessible. They also show more of the ravages of time and the depredations of "pot hunters."

Easier to reach, more extensive and better preserved is the Square Tower Group in Utah. Here also is located the modern campground with its ramada-shaded tables. Water is available, but not firewood. Several roads lead to this group, the best one leading west from

Pleasant View, Colorado by a twenty-seven mile graded road. The road taken by the writer leads off Utah's Route 47 between Blanding and Bluff and goes past Hatch's Trading Post. This is a graded road, generally considered impassable except for 4-wheel-drive vehicles, and provided there has been no recent storm. This is also the shortest route, and presented no particular difficulty during the middle of summer, although it is rough in spots and the going is slow. Colorado Route 146 leaving U.S. 66 south of Cortez, Colorado is rougher and longer and not recommended.



# WEEP



*Castle was built by Pueblo Indians around 1200 A.D.*

Many prehistoric Pueblo Indians, from about 400 to 1300 A.D., lived in the Four Corners area where the States of Utah, Colorado, Arizona and New Mexico meet, the only place in the United States common to four state corners. In this desolate country north of the San Juan River, the arid land, dotted with pinyon, juniper and sage, stretches out as far as the eye can see, broken only by the blue Abajo Mountains to the north and 9900-foot-high Ute Mountain to the southeast. Yet the mesas of Sage Plain are cut by deep canyons and it was in these and on the rims that the Indians

of Hovenweep built their remarkable dwellings.

First living in caves, the early Indians later built pit houses in the canyons and on the mesa tops. Still later they built surface rooms in connected rows. About one thousand years ago they learned to build with stone masonry, and it was not until almost 1100 A.D. that the Pueblo Indians built multi-storied houses, leaving their small villages in favor of larger pueblos. By 1200 they had left the open valleys and mesa tops, perhaps for defensive reasons. At this time they moved to the heads of the Hovenweep canyons with their permanent springs.

One hundred years later the villages were abandoned. No one knows precisely why, though several reasons have been suggested. One reason is the series of droughts occurring throughout the Southwest, culminating in the great one of 1276-1299. Another possibility is that arable lands may have been depleted; still another, that the large and compact pueblos may have been visited by disease in the form of plagues which wiped out much of the population. Probably all of these factors contributed to the disappearance of the Hovenweep dwellers.

The ruins today are an impressive sight, and little hint is given as to the



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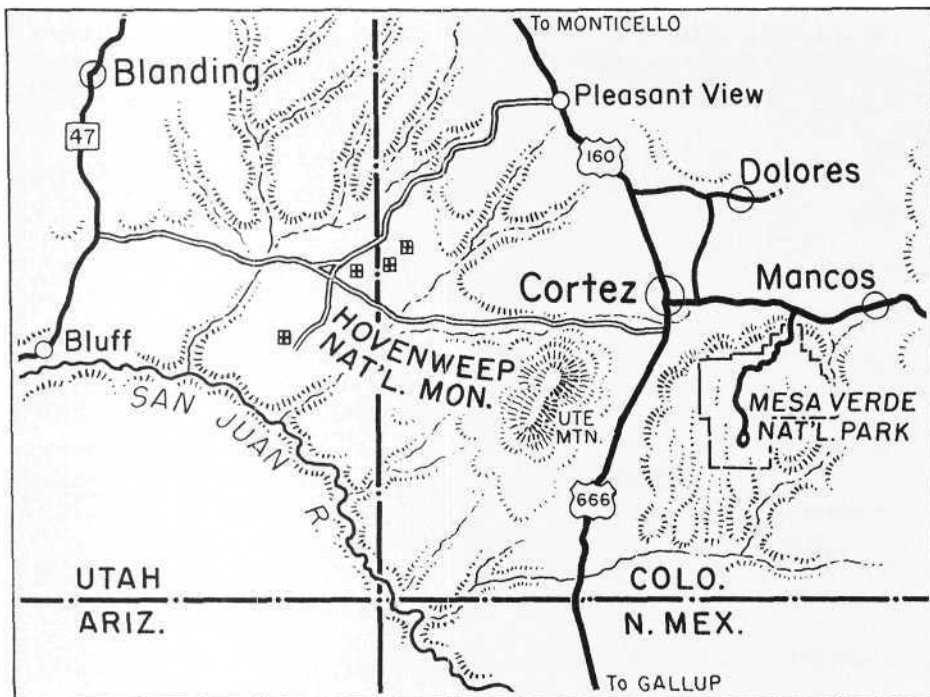


*One of the ramada-shaded campsites at the modern campground at Hovenweep. Hovenweep House (below) one of the largest pueblos in the Square Tower group.*

extent and excellent workmanship of the fine-coursed masonry as the visitor approaches the self-guiding trail to the Square Tower Group. Constructed of stones shaped and sized only by stone tools and held together with mud used as mortar, Hovenweep Castle stands atop the canyon's edge. This two-story "apartment house," with its towers, has a commanding view of the deep canyon below and presents a magnificent sight. The "castle" contains living and storage rooms, plus at least two kivas, or ceremonial rooms.

The ruins of Hovenweep House perch on the rim at the head of Square Tower Canyon. This was once the largest pueblo of the group, housing perhaps as many as 50 families and containing several kivas. Part of it was built on rock at the canyon's edge, while other portions are directly below it on loose stone at the head of the canyon.





The trail descends into the ravine below Hovenweep Castle and here the imposing structure of Square Tower is found. Mystery surrounds this tower, for no one knows why it was built. Was it a fort? An observatory? A lookout tower? A storage bin for the corn raised on the mesa tops? A place of religious observance? Until it is excavated we shall never know—perhaps not even then.

Passing by a spring, now barely more

than a seep, surrounded with willow trees, the trail meanders along the bottom of the canyon, then up to the rim threading its way past the many features of this monument to prehistoric Indian talent. A moment's pause by that ubiquitous desert plant—the yucca—will give one a chance to reflect on the many uses to which it was put. The roots were used for soap, the leaves for baskets, mats and sandals, the stems and flowers for food. Another plant common to the area, the Utah Juniper, provided food with its berries, while its wood was used for fuel and for roof beams.

On the canyon's edge stands Oval Tower at its strategic location overlooking the forks of the ravine. Petroglyphs pecked into stone in the form of three birds may be seen beneath the tower.

Other features are Small Tower, Eroded Boulder House, Twin Towers, not really towers, but large pueblos, and Rimrock House with its angled windows or ventilation ports. At several points along the one-and-a-half-mile loop, visitors may take a shorter return trail to the parking lot. At one point the trail goes through a natural tunnel, a welcome relief after the hot summer sun.

The "deserted valley" with its walk backward through time gives the visitor a glimpse into the life and times of long-ago people who had learned to live with the land. □



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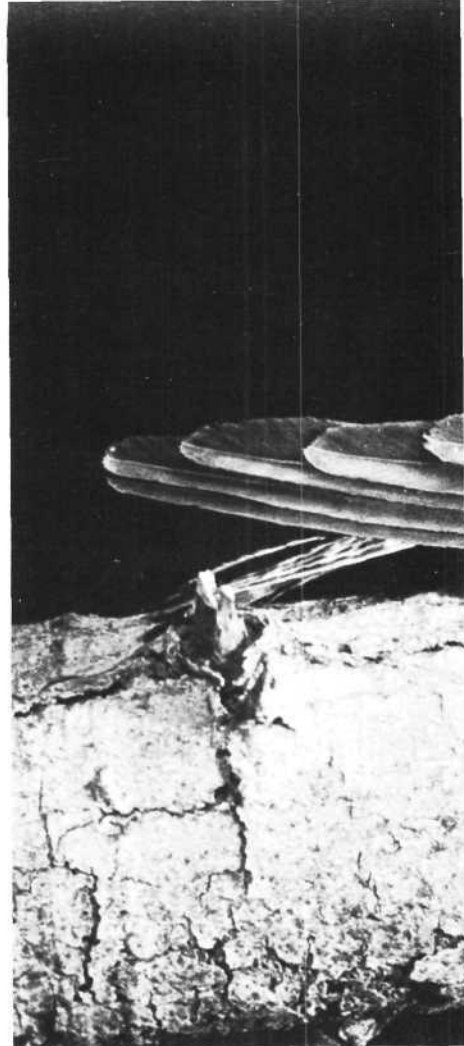
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# DESERT Big Mouth

by K. L. Boynton

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**S**ELECTING A bare spot of desert ground for egg-laying, directly out in the blazing sun, sounds like something no bird in her right mind is going to do. Yet, come May, Mrs. Poorwill deposits two eggs under these very conditions,

and unless an exceptional bit of ill luck occurs, successfully raises the brace. In fact, the maternity score for these birds is so good that poorwills are to be found in arid lands from Canada to Mexico.

Eggs left in such a position without

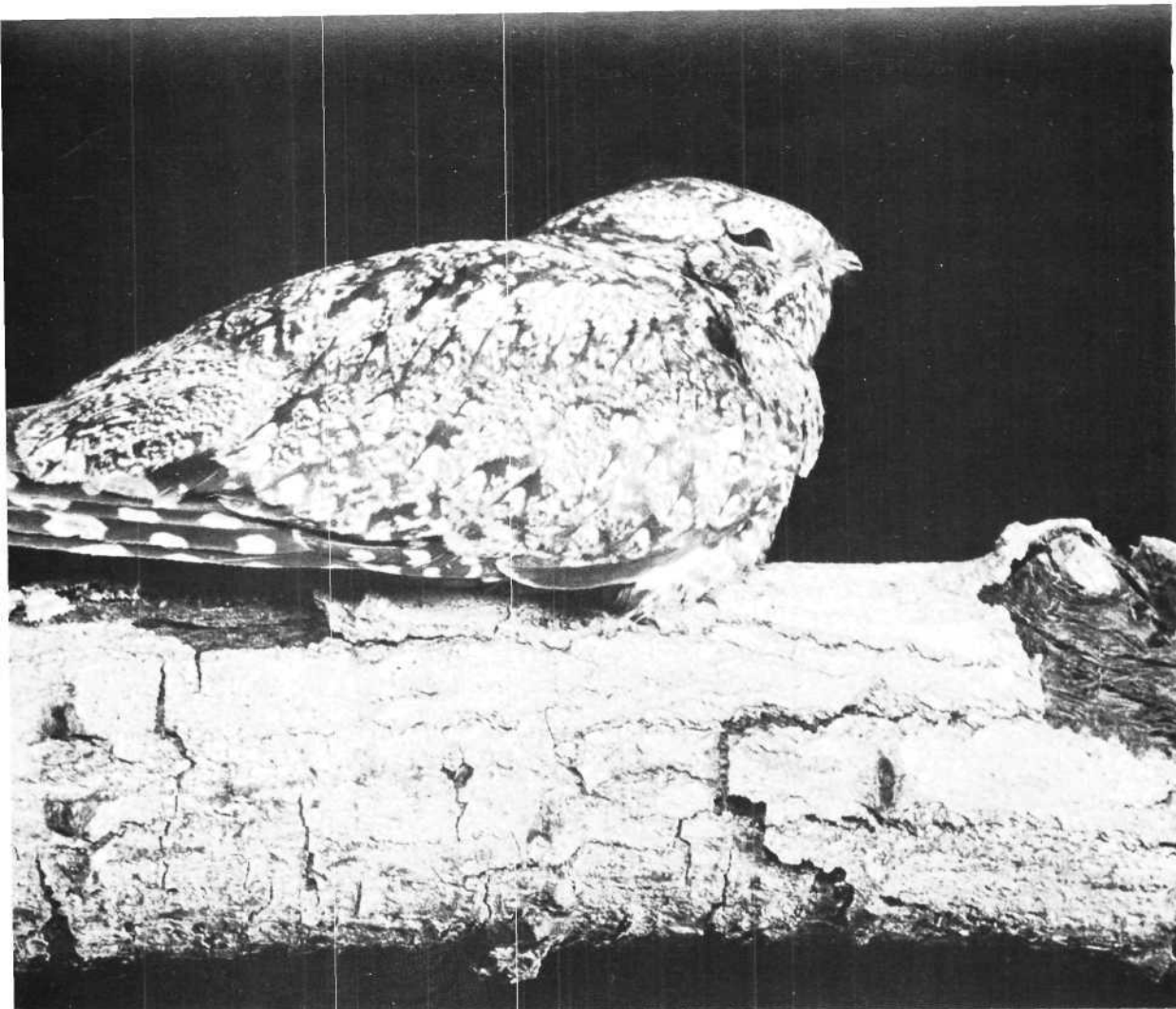
protection from the sun would be ruined, of course, so Mrs. Poorwill provides the shade herself, shielding them with her own body during the incubation period. And when the two chicks hatch, they huddle under this feathered umbrella during the heat of the day.

All this is fine and dandy for the offspring, but what about Mama? How can any bird stand such excessive heat and direct solar radiation for such long periods each day? By rights, she should be dead. Yet there she sits with the sun hammering down, and when dusk comes at last, she zooms off to see about supper.

Like bats, these poorwills forage in the air for insects, quartering back and forth in an erratic flight, sometimes close to the earth, sometimes swooping high. Main adjunct in the grocery-gathering department is Mrs. Poorwill's big mouth. This stretches far back under her eyes, and opens sidewise to a prodigious size. Further increasing its diameter is a fringe of bristles. Proportionately longer and stiffer than a cat's whiskers, they too are sensory aids, since there are nerve endings in the follicles at their base.







Touch news is quickly transmitted, greatly improving the bird's hunting style.

Myriads of small flying insects are scooped up into this great bristle-edged basket as the poorwill flies open-mouthed through the air. Larger prey, particularly moths, are also caught and relished. Damage that might occur from such big food shipments landing at high speeds, is prevented by extra large and strong bones in the roof of the mouth, reinforcing its whole structure. And, to keep the bristles straight and unclogged by insects, Nature kindly provided the poorwill with a comb: a series of tooth-like notches on the underside of the middle toe.

Fortified by proteins and water from this insect diet, Mrs. Poorwill is off to a good start when her day's work in the hot sun begins. Squatting on her eggs, she blends suddenly into the surface of the desert, for her beautifully variegated coloring in the softest bronzy grey with its mottling black and silver has an exceptionally camouflaging effect.

When the day's heat begins to increase, other desert animals flee for their lives down into holes, or to the coolest

shade and shelter they can find. Mrs. Poorwill just sits there quietly, for tucked into that little body—only a size bigger than a sparrow—are three secret weapons that beat the big, hot desert to a standstill.

Secret weapon No. 1 is her calm and unruffled temperament. She takes life slow and easy. Her's is a very low metabolic rate, less than one-half as fast as would be expected in so small a bird. Her heart ticks along about 200-220 times a minute (compared to a sparrow's 450, a robin's 570, a chickadee's 520, a canary's 795). Going along with this slower heartbeat is a lower oxygen intake. Her body, going about its business at a placid rate, uses up less energy, and creates less heat in its work.

Secret weapon No. 2 is her rare ability to operate without strain in a very wide range of environmental temperatures. The desert can be anywhere from 95 deg. F. to a hot 111, for instance, and the poorwill, as long as she sits quietly, continues to function without undue strain, even though her own temperature is on the rise.

Mrs. Poorwill does not pant. She has a much better way of unloading excess heat, and this is her secret weapon No. 3: she flutters the membranes of her mouth and forepart of her throat. It is the movement of air over these moist surfaces that cools her water evaporation. These areas are so thin and have so little mass they can be moved either by muscles in the tissues themselves, or by movements of the hyoid apparatus, a bony structure that supports the tongue and upper throat.

The poorwill's big mouth offers wide surfaces for evaporation, and its membranes are loaded with blood vessels carrying deep body heat to the surface. This gular fluttering, as it is called, actually takes very little energy, as its pace is in tune with the resonant frequency of the areas themselves, the same work-saving principle employed by a dog panting.

So efficient is this system that the bird can get rid of more heat than it produces metabolically, and in addition, can unload much of the heat gained from the environment. Since this cooling is achiev-

# desert shopper

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A new compact 5-watt mobile CB transceiver with contemporary styling and new convenience features is now available, according to E. F. Johnson Company, veteran manufacturers. The Messenger 125 citizens two-way radio is only 11½ inches high, 4½ inches wide and 7 inches deep and is claimed to be the most compact ever manufactured. In addition to the small size, other new features include five crystal-controlled channels controlled by push buttons. Standard Johnson solid-state circuitry is used throughout, including 13 transistors, 7 diodes and 2 thermistors. For information on the new unit and its features write to E. F. Johnson Co., Dept. DM, 299 Tenth Avenue Southwest, Waseca, Minnesota 56093.



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ed so cheaply and with very little energy cost, Mrs. Poorwill can maintain a stable body temperature of 107.6 when the desert is 111-113. Even if her surroundings hit 118.4, she can keep her temperature down well within the range she can tolerate.

When they finally hatch, poorwill youngsters are covered with down instead of arriving naked as is usual with altricial birds. This is a good head start, and what with being stuffed full each night with a high protein diet of insects, they grow fast.

Mrs. Poorwill is a first class nest protector, employing some fancy diversion tactics. She goes into her broken wing routine, flopping along the ground, luring the intruder far away from the nest site, and when almost caught, suddenly takes off into the air and away. One zoologist reports that as he was peering at one nest site, the youngsters themselves—only about 2-3 days old—began whirling and flopping, doing a bit of tactical diverting on their own.

Eating insects foraged from the air is a fine way for a desert dwelling bird to make a living. It permits working the grocery detail at night when it is cooler, and it nets a highly nourishing menu. But it has one serious drawback: part of the year, the weather is too cold for the insects to be there. At this point, the usual procedure is for the bird to take off and go where the weather is warm enough for insects to be flying.

Not Mrs. Poorwill. She stays home. Creeping into a rocky crevice, she goes into a kind of torpor, which in many ways resembles the hibernating done by various of the furry tribe who put themselves out of circulation while food supplies are short and the weather too cold for activity.

Ironically, the Indians of the Southwest who had been around the desert regions for a couple thousand years knew the poorwill as "the sleeping one" and told about birds that sleep by winter hidden in the rocks. Such information was regarded with turned-up noses scientifically, and filed away under "myths."

Then, one November day in 1946, biologist and desert expert Dr. Edmund Jaeger, out with a class of students on a field trip, actually found a poorwill

wedged in a vertical crack in a rock. They almost missed it, so well camouflaged was it with its cryptically patterned feathers. And they thought it dead, for there was not the slightest movement, nor could they detect even the faintest heart beat. But, as they handled it, the bird began to puff a bit, and after a time, opened one eye. It made a few squeaky mouse-like noises. Then, opening its big mouth, it yawned in their faces. They left it on the ground temporarily in the sun, and when they returned about three hours later, and picked it up, the bird suddenly raised its wings and took off. (*Desert, November, 1954*).

When Jaeger's report of this astonishing episode was published, bird specialists got quite a jolt. Here for the first time was undeniable evidence of a bird doing something suspiciously like hibernating. Hats were tipped both to Jaeger and to the Indians, and then a flurry of activity ensued looking into poorwill physiology to learn how in the world a bird could survive for some three months with no food and in lethally cold temperatures. Today this razzle-dazzle bird with the big mouth is still in the limelight, with more interesting facts being reported all the time.

It seems what touches off this torpor business along about the last of October is the absence of insect food supply, and the concurrent drop in night temperatures. The bird can enter into torpidity at a pretty high temperature, somewhere around 62 degrees and the process can be so fast that it is probably run by the central nervous system. The heart slows down steadily to an imperceptible beat and the temperature drops from a normal 102 to a very cold 41 in deep torpor. Nothing could look deader than this poorwill now, and even a mirror held to its beak shows no moisture.

Coming out of hibernation is not so easy. Arousal seems to be triggered by the outside temperature rising to about 71F. Shivering, that well known warmer-upper that produces heat in men and mice as well—starts the process going. The bird's heart rate picks up, its body temperature starts to climb; the shivering stops when the bird is as warm as the air temperature. Still far from on the job, however, the poorwill may need several hours for complete arousal, since its temperature must be at least 95F before it


can be active, and it's a long climb from the chill of deep torpor.

It now appears that this torpidity can be worked on a short time basis as well, say for a few hours a day only—a very handy thing at the beginning of the season when the bird is officially out of winter hibernation but the weather still not warm enough for an abundant insect supply.

It may take Mrs. Poorwill a while to get up full steam after a long winter's sleep, but the late spring nights find her abroad early and late, in the midst of the poorwill social swing. Now indeed is it apparent why these birds are also known as "nightjars" for the still of the desert is broken by their clear ringing call, a particularly vocal bird being able to shout "poorwill" every two or three seconds and keep it up for hours.

How this is done around a mouthful of insects remains to be investigated by some hard working scientist. Until his report appears, Mrs. P. probably has the answer: all in a night's work even as she beats the desert's heat in her working day. □

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*Despite time and weather, buildings of the Chemung Mine still stand. The assay office (below) looks just as it did during the heyday of the operation.*



# Gold Mine in the Sky

by Kay Ramsey  
Photos by Bob Ramsey

**H**AVE YOU ever seen a gold mine in the sky? We know of one that almost fits this description. Just about half-way to heaven, lies the old Chemung Mine, brightest star in the Masonic Mining District of Mono County, California.

As you stand on the site, 8200 feet above sea level, and gaze over the wide unbroken view of the surrounding country, no other words but these seem adequate. To the west rise snow-capped peaks, and in the distance, sunbeams sparkle on the blue waters of a high mountain lake. At this altitude, the air is warm and thin, and faintly pine scented.

Here, a thousand feet below the bald dome of Masonic Mountain, you are sur-

rounded by the historic buildings of the gold and silver mine. The mill, the assay office, the blacksmith shop and the other buildings are all a little older, sadder, and perhaps wiser than they were in the Chemung's heyday. But, all are in good condition, with most of their machinery and furnishings intact; the weather-beaten survivors of many winter storms.

This is the property of the Masonic Mines Association, represented by Elton and Violet Heinemeyer, a couple who make the main house at the mine their home through the summer months. Elton Heinemeyer is an old-time mining man; he has worked in the mountains and deserts of California and Nevada for most of his sixty-some years.



Fourteen years were spent prospecting and mining the rich deposits of the Mother Lode country, so he knows minerals and mining techniques as only a few men do today. The Heinmeyers have had an interest in the Chemung Mine since the early 1930s, and are delighted to show visitors through the grounds.

Your tour might start with the bunkhouse attached to the Heinemeyer residence. A door from the main house opens onto a long hallway leading to the sleeping quarters of the 20 men who once worked at this operation. In the bunkhouse, room after room is furnished just as it was in the old days; a quilt-covered bunk, a small dresser adorned with a

kerosene lantern, and a single chair or stool. Magazine cutouts decorate the walls. They are sparse, utilitarian workmen's rooms, homey but without fancy trimmings. The last room served as a wardrobe closet. Along one side, miners clothes still hang, each wooden peg crowned with a miner's hard-hat. They seem to be patiently waiting for a gong to proclaim a new day and the morning shift to begin.

Outside, tame chipmunks scurry up to be fed. These are Violet Heinemeyer's pets, and she pampers them with tidbits from the table. Lately, the greedy little creatures haven't been satisfied with her daily handouts, and have begun to nibble away at the walls of the old building. If this doesn't stop soon, they will have to be banished from the backyard.

Downhill from the bunkhouse is the fully equipped assay office. Here, ore samples from the Chemung Mine, or one of the 20 other Heinemeyer claims, are analyzed to determine their rare mineral content. A small measured amount of mineral-bearing rock is crushed, mixed with chemicals, and begins a complicated smelting process that Mr. Heinemeyer explains step by step.

When the moment of truth comes, if luck prevails, a one-inch bone ash container or crucible, will hold in its center a tiny shimmering button of the purest gold and silver. The resulting weight of

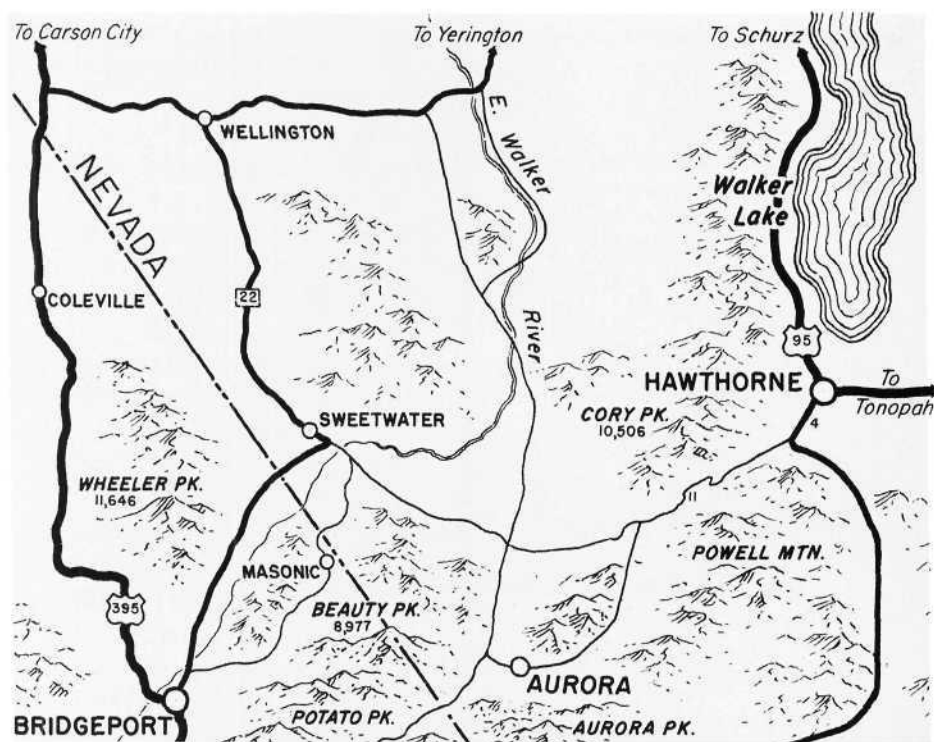
this button in milligrams is a composite of all the gold and silver in the ore. Thus, a button the size of a pinhead, signifies that ore from the vein containing the original sample is worth approximately \$1000 a ton.

There are a great many of these crucibles, sorted out from the duds, neatly identified as to location and value per ton, set aside on a special shelf. But, they will have to wait for better times for further development. Now the market for gold is lean; smelting costs are prohibitive. Mr. Heinemeyer says, "It just doesn't pay to work our claims anymore."

A few yards from the assay office, you will see the framework surrounding the 140-foot main shaft of the Chemung Mine. For the first time since the mine's discovery in 1913, winter rains have flooded the shaft. At one time, the waters surged to within five feet of the top of this opening. Many levels below lay tools, machinery and years of hard work.

The earth here is very rich; three distinct gold-bearing quartz veins and a parallel vein of silver run beneath the property. Not long ago, when the kitchen waterpipes were replaced, ore assaying \$1500 a ton, was found at the bottom of a two-foot ditch. Yet, to the untrained eye, the ore looks much like ordinary granite. In this region, precious minerals are found in minute particles

*Continued on page 38*





THERE ARE many historical places, ghost towns, museums and what not which can only be reached by traveling over rough jeep terrain. Not all of us like to be bumped and jostled, though. Some only prefer to explore the past by pleasure car gliding smoothly over well known highways.

If your forte is visiting quaint old towns and browsing through Victorian mansions, a trip to Nevada's capital city is well worthwhile. Although present day Carson City is a bustling, fast-growing community, it has an aura of charm and quaintness seldom found in other small towns. Part of this is achieved by the use of a number of stately old buildings. Each impressive structure was solidly built, and each one has an interesting background.

Of particular attraction is the Capitol Building, which was erected on a 10-acre plot of what was known as "The Plaza." Ready for Nevada's legislators on January 1, 1871, it has been used con-

# COMELY CARSON



tinuously for every session of the legislature.

As one strolls through spacious halls, particularly noticeable are handsome windows in the main part of the building with vaulted columns, double arched sashes and beautiful window panes of French crystal sheet glass. Wainscoting, arches and floors in the Capitol are of Alaskan marble, shipped in blocks weighing 20 tons each to Richmond, California, where they were sawed and polished before being hauled to Nevada. Stone taken from the prison quarry was cut and shaped to provide basic walls 30 feet thick and walls for the exterior foundation seven feet thick.

An elegant frieze measuring three feet wide and more than 400 feet in length decorates the main corridor. The upper border, six inches wide, depicts a pine cone design, while the flower border displays grapes and vines. The main part of the frieze illustrates festoons emblematical of the fruits of the earth suspended from miners' picks. Between each miner's pick

*Governor's mansion (above) and (below) the fascinating museum.*



is a bundle of wheat representing Nevada's agricultural industry.

One odd fact relative to the capitol building is somewhat of a mystery. Carson City's first school teacher, Miss Hannah K. Clapp, was awarded a \$5,500 contract to construct the ornate iron fence enclosing the capitol. A few years ago a truck rammed into the fence at the southeast corner of the grounds damaging one of the large pillars. Workmen were very much surprised when they repaired the pillar to find a Civil War saber in its hollow depths. Could this have been given Miss Clapp by some young man serving in the Civil War who never returned? No one knows the answer to the saber mystery.

In keeping with an ornate capitol building, a permanent home for Nevada's chief executive was built at the intersection of Mountain and Robinson Streets in 1909. Although not as old as numerous Victorian mansions in the city, its style

children returned, they had no place to stay. Abe had been too busy building homes for other people and had neglected to find new living quarters for his family. Nothing being available at the time, Abe moved them into two rooms of the Mint, one of which is the present display room.

The mint was closed in 1898, and its coin press sent to Philadelphia where it remained for about 60 years. Since 1941 the mint has been utilized as a museum. There are many Indian artifacts, guns, and other relics and memorabilia of the Old West on display. In the basement is a full size replica of a silver mine similar to those of the Comstock Lode.

Carson City's quaint, turreted red brick post office and Federal Building has a high mansard roof typical of the period of its construction in 1888. It is located on North Carson Street between Telegraph and Spear Streets. Its granite steps were part of the Ophir Mill which handled ore from the Ophir Mine of Virginia City's Comstock fame.

The old Virginia & Truckee Engine House, situated approximately 90 feet from Stewart Street, is one building in Carson City that did not conform to established custom. Instead of erecting it in the usual circular roundhouse fashion, builder Abe Curry built it long and narrow (165 feet wide and approximately 200 feet long) so trains entered from one end. Engines were considerably smaller than they are now, which probably accounts for the engine room being constructed only 60 feet in depth.

Upon completion, an elaborate fancy ball was held in the building. The floor was beautifully polished and fancy refreshments provided. Sparing no expense,

an orchestra from San Francisco was hired to help celebrate the event.

In addition to the impressive business structures, many well-built homes were laid out along Abe Curry's carefully planned streets. Most of them were patterned after the houses of New England.

Another must is a visit to the elegant Rinckel mansion. Built in 1874 at the corner of Curry and King Streets, the house is still in excellent condition and contains the original furnishings. Open for public viewing and inspection, it has been seen and appreciated by many hundreds of individuals.

The Bliss Mansion, the first home in Nevada to have an inside bathroom, private telephone and gas lights, was recently designated a state historical site by the State Parks Departments. The unique mansion has been continuously occupied since being built by lumber and railroad magnate, Duane L. Bliss, in 1879. Located on Park Street, it was, during that time, one of the largest and most modern home in the area.

There are numerous other outstanding old buildings which would occupy a visitor's whole day. A visit to Carson City is a step into the past. □

# CITY

by Doris Cerveri

reflects southern colonial days. This 60-year-old structure is unique in that donations of cash, materials and labor from residents all over the state recently were used to finance a mammoth refurbishing project. Other monies used in bringing it up to present building code standards, and changing it from a rickety, rambling, hard-to-live-in structure, was an appropriation of \$78,750 from the legislature.

On the same street as the capitol building, but on the opposite side is Nevada's State Museum. This gray granite, two-story building was built in 1869 as a United States Mint, and for many years Wells Fargo used it as a bullion depot. During the time it was in operation, 13,888,000 Carson City dollars were minted. Today they are a valuable collector's item.

Before its completion, Abe Curry's family lived in the building for a short time. It seems while Mrs. Curry was in the East visiting her relatives, Abe sold their home. When she and their six

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## GOLD MINE IN THE SKY

Continued from page 35

that must be chemically extracted. Few nuggets of any size have been found at the mine.

Years ago, the owners of the Chemung Mine grew tired of trucking their ore to Minden, Nevada for processing, so they built their own mill on the premises. In one of the old buildings, you will find the giant rock crushers that reduced the chunks of ore to a fine powder. The first crusher broke down the bulk; then a second crusher reduced it to the size of a quarter. Twenty-pound steel balls in a tumbler completed the operation. The noise these crushers made could be heard for miles, and the fine white dust in the poorly ventilated room was so thick that the miners could scarcely breathe. Many men suffered from silicosis.

In another building, this powder was transferred to waiting cyanide vats, where the precious metals were separated from the earth. Today, these huge vats stand filled just as they were in the days when the mine was in full production. Reports indicate that well over a million dollars in gold and silver was taken out of the Chemung Mine before production ceased in 1954.

When the tour is finished, you feel as if you had been privileged to step back 50 years in time. Very few complete gold mining operations still exist. It is rare to find one in such a lovely setting, and rarer yet to find hosts as gracious as the Heinemeyers.

A word of advice before you visit the Chemung Mine; check first in Bridgeport, on Highway 395, for directions and road conditions. You should have no trouble finding the dirt road leading off to the right about four miles east of town on State Route 22, and you don't need a four-wheel-drive vehicle to get back into the mine, a distance of seven or eight more miles.

Even though the Heinemeyers try to keep the way open from May through October for themselves and their many friends, weather sometimes plays havoc with mountain roads. If you're interested in mines and memories, we're sure you will be welcome at the gold mine in the sky.

## RAMBLING ON ROCKS

Continued from page 5

tion that opal is bad luck. We have had some of our own opals fall apart, but many more have stayed together.

The opal cutter is affected by the included water. Part of the process of producing gems from most minerals calls for the application of heat in one form or another. If, when cutting opal, the temperature rises above a certain level, the water turns to steam, and a minor explosion creates two or more pieces where formerly there was only one. This situation makes it imperative that the gem cutter handle opal with extreme care in any stage where heat is involved.

Because of the popularity of precious opal from Australia, many persons think this is the only type and color. Within the class of precious opal, there is the usual white or whitish background with the play of color. Black opal has a dark grey to blue background. As previously mentioned the red or orange, usually transparent material with play of color, is known as fire opal.

Excellent fire opal comes from Mexico. A nearly colorless and transparent type from both locations is known as jelly opal. A very interesting type of precious opal is clear and colorless without a play of color when viewed by reflected light, but becomes aglow with color when viewed with transmitted light. This has two very interesting names. The English name, from the Latin, is Solari, referring probably to the color when viewed with sunlight through it. The Spanish name, Contra Luz, originated in Mexico. As always with Mexicans, the name gets right to the point. The words mean "against the light."

The colors of common opal are more varied. Cherry opal is transparent red to orange. There is transparent blue of many hues. We have seen a fine transparent canary yellow. Deep purple, green, brown and other colors are rare, but seen occasionally. The desert Southwest has a number of deposits of common opal of varying dark hues of translucent to opaque material. Almost no precious opal is to be found in desert areas.

Good common opal is usually uncommon, but precious opal is always precious!

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# Desert Gardening

by Eric Johnson

*How is your garden growing? If you have a question or a problem, send a letter with a self-addressed stamped envelope to Eric Johnson, Desert Magazine, Palm Desert, California 92260.*

**S**UMMER HEAT places heavy demands on all plant material. The real test of plant performance is in your hands as you apply water. Deep watering puts the moisture into the deep root zone and provides a reservoir for both growth and maintenance.

Shallow rooted annuals, perennials, ground covers, and lawns will require more constant watering. Deep rooted trees and shrubs generally need basins wide enough to cover the root area and deep enough to hold at least six inches of water at each filling. A double application is even better. In all cases a mulch layer applied over any root zone will reduce the loss of moisture from evaporation.

Watering in the evening gives you the benefit of high water pressure and also reduces the loss of water through evaporation. Plants susceptible to mildew problems should be watered with a flow of water into the basin rather than overhead sprinkling. Install an automatic watering system where possible to get more regulated application with the use of bubblers and underground sprinklers. In all cases avoid light hand sprinkling on any plant material. It is a waste of water and time, soak only.

The native creosote bush that covers much of the desert develops into a handsome plant when provided with extra water. A recent observation in a Tucson garden showed creosote plants that had received extra moisture grew twice the size when compared to the normal growth pattern.

Palm trees require extra attention during the summer months as they move into their most active growing period. Extra watering will provide added stimulus for growth. Transplanting palms during the summer months is ideal as they maintain their growing cycle. A large root ball that includes as much area as possible filled with root is essential. Tie the fronds into a tight bunch before handling and keep them tied up for at least a month to protect the tender inside growth. Apply water daily for at least three to four weeks in a basin. Use Vitamin B1 solution after transplanting to reduce shock of transplanting. Brace or install guy wires to the trunks of tall palms to help stabilize root ball.

Citrus respond and require adequate watering during the high temperature months. In sandy soils you may have to apply a deep soaking every five to seven days. Trees in lawn areas must have additional water in basins, lawn watering only creates a shallow root system. Continue the monthly applications of citrus fertilizer.

Roses often go into a semi-dormant period as heat increases; however, the demand for moisture increases and mulching over all root areas becomes more important. Keep the roots cool and the tops respond readily with increased vigor and growth. Continue your fertilization program and repeat again in another month.

Hot weather is Bermuda grass planting time. St. Augustine, hybrid Bermuda, and zoysia grass transplant readily at this time. The response is rapid. Dichondra seed grows fast and covers in a short time. Soil preparation should be adequate in all cases. Remove all debris, turn over soil to at least six inches, work in soil additives for a better root base. Close mowing is important to reduce a thatch build-up, especially with Bermuda lawns of any type. Deep watering will induce deep rooting. Spasmodic watering will only create shallow rooting and invite weed growth.

Summer pruning of tropical and subtropical plants such as hibiscus, Natal plum, bougainvillea, lantana, and yellow oleander is ideal, recovery is rapid. Thin, remove excess growth, and cut out dead wood at the same time. Organic fertilizer

induces steady growth, high nitrogen creates excess flush foliage.

Bougainvillea flowers better with lack of fertilizer and when kept on the dry side. Remove sucker growth on citrus and dead wood. Long rangy branches should be kept under control, little other pruning is necessary. Newly planted citrus trees will need a tree white paint on stems to reduce the problem of sunburn.

## FROM THE MAIL BAG

What can I do for my citrus, bottle brush, and pyracantha? Leaves are becoming more yellow, although the veins remain green.

The lack of available iron in most soils creates a problem called chlorosis. Continued leaching with heavy watering also removes plant nutrients from the root area. Best results can be had by applying chelated material as soon as you observe the above condition. Follow directions carefully. Iron sulfate is also effective, but reaction time is slower than chelates. □

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**FREE CATALOG EXANIMO**—a name you can trust. Detectors, prospecting, treasure-hunting equipment, sporting goods. Exanimo, Segundo 2, Colorado 81070.

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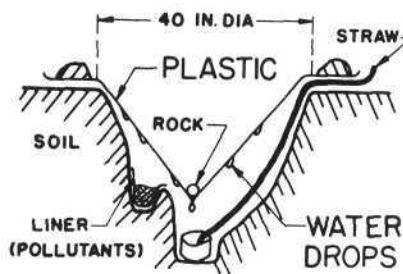
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# Woman's Viewpoint



**A**SERENDIPITY OF writing Woman's Viewpoint is the mail I receive from you readers. A note from Mrs. Virgie Macartney of Lee Vining, California, was a double treat because she made her own stationery using pressed flowers. I asked Mrs. Macartney if she would share the "recipe" and she graciously agreed.

The stationery looks similar to parchment paper with pressed flowers and greenery imbedded between two layers of paper. Imagine making a box of stationery for only pennies!

## MATERIALS NEEDED

tissue paper                      waxed paper  
white glue                      small brush  
pressed flowers, leaves and grasses  
glitter (optional)

1. Tear off a sheet of waxed paper slightly larger than the tissue paper.
2. Dilute glue—one part glue to one part water.
3. Arrange flower at right-hand corner of wax paper.
4. Cover with a single thickness of tissue.
5. Carefully brush and pat glue on tissue until saturated.
6. Sprinkle glitter on wet tissue if desired.
7. Allow to dry 8 to 10 hours, and then seal with an iron set for wool.
8. Cut into note-sized paper. Edges may be frayed by tearing across a ruler. Or edges may be cut with pinking shears. (Virgie has scissors that cut in tiny scallops.)

9. Fold paper in half and insert a sheet of writing paper.

10. Make or buy envelopes.

I especially like her suggestion for using four-leaf clovers on get-well cards. If your clover has only three leaves, doctor it up by adding a fourth leaf; it won't even show.

Remember this idea for later. Fern makes adorable pine trees on holiday notepaper. Use the tip of the fern for a large tree and the small leaflets for tiny trees marching up a hill. A sprinkle of red glitter adds a Christmasy touch.

The cards can be varied by using colored tissue paper. My favorite card, of the bakers dozen Mrs. Macartney sent, has three yellow and purple violas pressed under pale yellow tissue. Another beautiful card used orange tissue and silvery green grass from the entrance of Yosemite.



The parchment looking paper can be used for invitations, bookmarkers, scrapbook covers, wrapping paper, and to decorate small boxes. The variations and uses for Mrs. Macartney's paper are limitless.

Here are two great camp-out recipes to try this summer.

## BARBECUED STEAKS OR SPARE RIBS

- 2 cups catsup
- 1/2 cup vinegar
- 1 tablespoon lemon juice
- 1 teaspoon salt
- 1 teaspoon parsley
- 1/3 cup brown sugar
- 1/4 teaspoon pepper
- 1 teaspoon Worcestershire sauce
- 1 tablespoon soy sauce
- 1 tablespoon vegetable oil

Mix ingredients in a large container. Add steaks or ribs, making sure the meat is covered with the sauce. Marinate in refrigerator for several hours or

longer. When ready to travel transfer the meat and some sauce to a heavy plastic bag. Remove extra air from the bag and seal with a rubber band. Keep meat cool in ice chest until ready to cook. Barbecue to individual taste. (Fresh meat is hard to keep when traveling but marinated meat will keep for five to seven days.)

Mrs. Karen Rynberg,  
Citrus Heights, Calif.

## HAMBURGER AND CABBAGE SKILLET DINNER

Brown one pound hamburger, add one can pork and beans, one can kidney beans, (drained). Stir in 1/2 cup water, two teaspoons each prepared mustard and vinegar, and one package dried onion soup mix. Bake in heavy covered skillet on top of stove.

Ellen E. Pope,  
Bowman, North Dakota.

How would you like a recipe for a refreshing and delicious drink?

## ICED FRUIT DRINK

Mix 1 cup sugar, 1 1/2 cup boiling water. Stir until sugar is dissolved. Cool.

Add 1 small can frozen orange juice (diluted), 1 small can frozen lemonade (diluted), 1 large banana (osterized).

Mix all ingredients well and freeze to a slush.

To serve: Fill glasses with slush and add 7 Up. Makes one gallon.

Do any of you readers have a recipe using wild berries, fruits or herbs? Send it in! I hope the September issue can be filled with recipes using nature's harvest. It would be such fun to try cactus candy, currant pie, gooseberry jam or mint tea. Where are the old-fashioned recipes that use the natural vegetation of the West? ☐

## The Desert Explorer

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# Letters to the Editor

Letters requesting answers must include stamped self-addressed envelope.



## Grave Ghouls . . .

Relative to the Publisher's Poke of May, '70 on desecration of tombstones, there is another atrocity even closer to home. In the April, '57 *Desert* an article by Ronald Miller on the Virginia Dale mining district (California's San Bernardino County) states:

"The only other trace of man left at New Dale lies in the sandy cemetery. It is small and heart-shaped and made of marble. It bears the inscription: Carl P.—Son of Percy J. and Adaline D. McCabe—Oct. 17, 1903 to Jan. 11, 1904—BABY."

This grave has recently been dug up and the tombstone cracked apart to get the inscription face of the granite. I wish now I had taken a picture of this to send you, but it made me so sick and disgusted I just choked up and left the area with a silent prayer on behalf of the misguided persons who justified their actions to themselves.

God help all of us if this continues. The only answer is to get involved, be alert and if you see something like this going on, get a license number and report it to the authorities.

JIM OSBORN,

Rosemead, California.

*Editor's Note: Desert vandalism is bad enough, but desecration of graves by ghouls, which evidently is on the increase, cannot be tolerated. Desert Magazine will pay \$100.00 REWARD to the person furnishing information which leads to the arrest and conviction of grave robbers.*

## Future Generations . . .

I just read the article *This is Your Desert* by Al Pearce in the April, '70 issue and found it very enlightening. I'm sorry I can't offer any new ideas but I will send along a few comments.

We moved to the desert last year from the San Bernardino area and were looking forward to exploring some of the off-road country. We heard about the report from the Bureau of Land Management and like other people assumed they were wanting to close all back areas.

We have seen some of the damage and litter caused by the thoughtless public. We

have also seen once wild areas taken over by investors of one kind or another.

We do need more recreation areas so people have somewhere to get away to, but they should close some desert areas as they have made wilderness areas in other parts of the state. If someone doesn't do something soon, future generations will have to look at pictures to see what this beautiful desert was meant to look like.

We thoroughly enjoy your magazine, from cover to cover, and look forward to receiving it each month.

SHIRLEY ZUTTERMEISTER,

Blythe, California.

## Church Identity . . .

I am enclosing a picture of an Indian mission church taken some miles southwest of Phoenix. After driving along a deserted desert road, we were surprised to come upon this very beautiful white church enclosed by a fence and locked gate.



We believe the mountains in the distance are the Sierra Estrella, and it could be the Gila Indian Reservation. I would appreciate it if, perhaps, the *Desert Magazine* staff could locate and name this lovely church, or find something concerning it.

MRS. JOHN T. MITTEN,

Kenmore, New York.

*Editor's Note: We could not locate this church in our files. Could a reader help?*

## Rocks Needed . . .

I am a new teacher in a small rural school district in the San Joaquin Valley. Next year I am going to be teaching an Earth Science course and I am in need of rock and mineral specimens to supplement my own collection. These would be used in the classroom to help instill in our children a knowledge of the wonder of rocks and an appreciation of the great desert resource that we have in the southwestern part of the United States.

I would greatly appreciate anything you can do for me and if you can print an appeal in *Desert* I would be very happy. Please address all replies to: Walter S. Bowser, 1912 Bernard St., Bakersfield, California 93305.

# Calendar of Western Events

*This column is a public service and there is no charge for listing your event or meeting—so take advantage of the space by sending in your announcement. However, we must receive the information at least two months prior to the event. Be certain to furnish complete details.*

JUNE 20, ALL-TRIBES INDIAN DAY, Bluff, Utah. Old Navajo games, horse racing, fry bread and bow and arrow contests. Competitive Indian dancing.

JUNE 20 & 21, BARBED WIRE SHOW, second annual convention of the California Barbed Wire Collectors Association, Nordhoff High School, Ojai, Calif. Exhibits of barbed wire, fencing tools and related items. Admission free.

JUNE 20 & 21, BATTLE MOUNTAIN ROCK AND GEM SHOW, Battle Mountain, Nevada. Displays of gems, Indian artifacts, bottles, sea shells. Write Doris Wilson, Box 458, Battle Mountain, Nevada.

JULY 1-5, PORT HUENEME HARBOR DAYS CELEBRATION, Port Hueneme, Calif. Parades, carnival, boat displays and rides.

JULY 3-5, FIESTA DE CACTOS & SUCCULENTES SHOW, Los Angeles State and County Arboretum, 301 N. Baldwin, Arcadia, Calif. Sponsored by the Cactus and Succulent Society of America. Admission free.

JULY 4, JARBIDGE CHUCK WAGON & DANCE, Jarbidge, Nevada, to raise funds for restoration of Nevada landmark.

JULY 4 & 5, ALL INDIAN POW WOW, Flagstaff, Arizona. Indians from throughout the Southwest stage dances, rodeos and sell their crafts. Write Chamber of Commerce, Flagstaff, Arizona 86001.

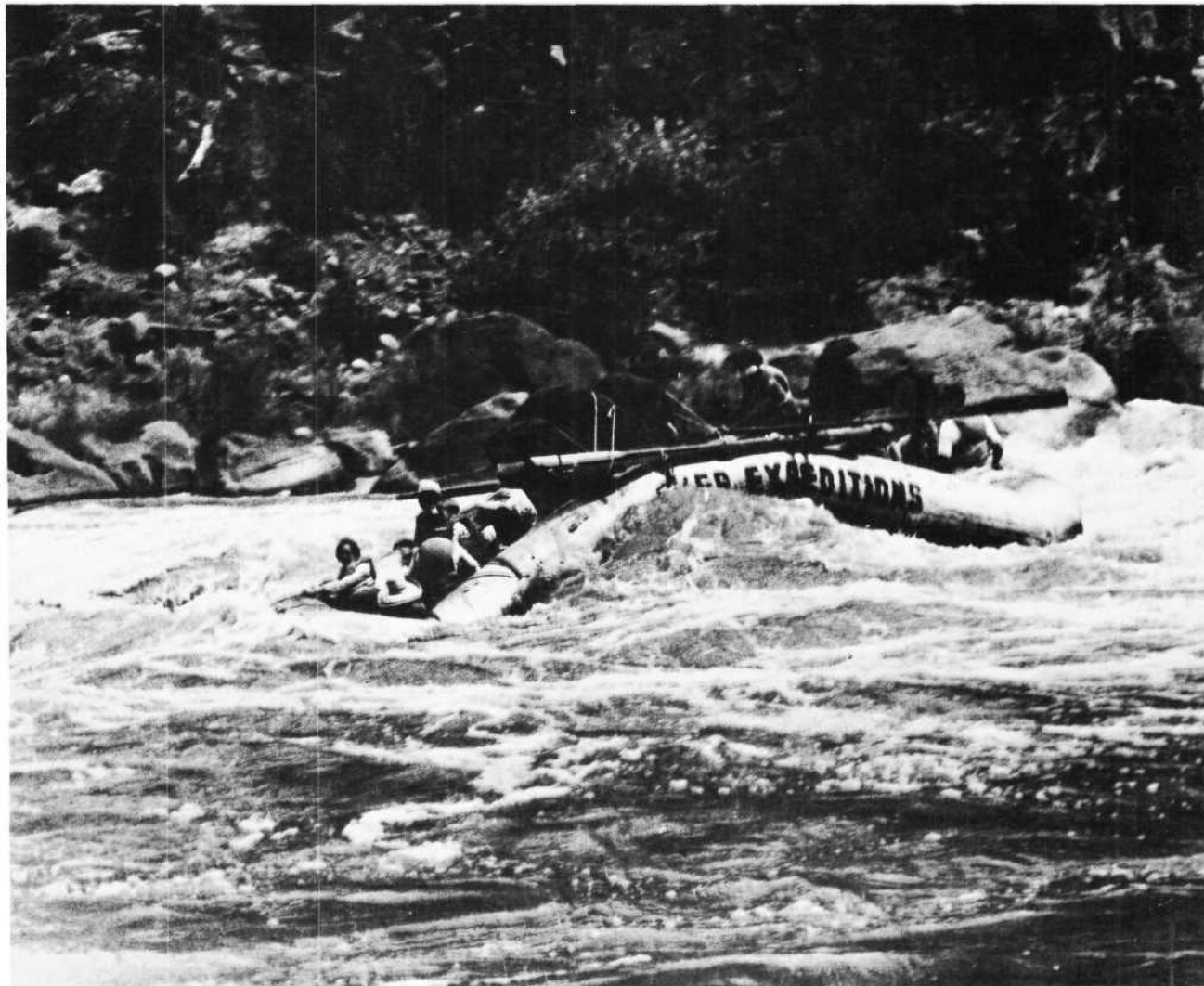
JULY 31 - AUGUST 2, APPLE VALLEY POW WOW, Apple Valley, California. Indian craftsmanship, ceremonial dances, and various thoroughbred horse shows. Write Chamber of Commerce.

AUGUST 12, LITTLE FIESTA, Santa Barbara, California. Opening of four-day annual "Old Spanish Days."

AUGUST 13 - 16, INTER-TRIBAL CEREMONIAL, Gallup, New Mexico. About 30 different tribes participate in rodeos, parades, dances and other performances. Arts and crafts for sale. Write Inter-Tribal Indian Ceremonial Association, Box 1029, Gallup, New Mexico 87301.

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